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Textile World

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The Wool Industry Must Carry On

THE woolen and worsted industry is approaching a fork in the road. In two months it loses the active services of A. D. Whiteside, president of The Wool Institute. It must go forward along the trail blazed by him and his associates, or else drift into the rut of utter lack of common purpose and of cohesion.

The action, this week, of the committee which has been considering this Institute matter, indicates that they will choose the former path. However, there must be more than a decision on the part of a few. There must be whole-hearted support from the rank and file of the industry; and a determination to supply the completely cooperative attitude, which has been conspicuously lacking during the last three years.

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Progress has been made. Outstanding has been the development in styling. Not many years ago only a few mills were producing what might be termed style fabrics. Today a large number of manufacturers are producing goods which compete for the patronage of the most exclusive clientele.

Simultaneously, there has developed a more representative distribution of the products of the industry than ever before. The woolen and worsted mills are making and selling what the public wants.

The part played by the Institute in this progress, through its styling service and its fashion revues, is well recognized.

Nevertheless the industry, with certain noteworthy exceptions, has not been making money. Even in the midst of a world-wide depression, it has stood out as a black spot. Only a few weeks ago, when we conducted a survey on the outlook in textiles, we encountered almost unanimous gloom regarding the future in woolens and worsteds. Forecasts of a definite upswing were qualified with the phrase "except in the wool branch."—And there is not one fundamental reason why such an exception need be made.

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Specifically, the woolen and worsted industry must take stock of these last three years of coordinated effort. It will find that, in the main, it is on the right track. It will discover that its hope for the future lies in intelligent group action within the industry; in the further prosecution of such fundamental activities as statistical development, cost work, new uses; in promotional activities such as continued dissemination of styling information and the holding of an annual or semi-annual fashion revue; in the correction of certain serious and well-known trade abuses which have stunted profit margins; and in the determination of each manufacturer, individually, to give his customers the value received which they have a right to expect, but not to give unreasonable inducements and concessions.

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For carrying out this program, the industry has the machinery in The Wool Institute. It has the personnel in the Institute staff. To scrap that machinery would be the height of economic folly. A year, or two years, from now the job of building an organization would have to be done all over again.

However, the industry might as well scrap it, as to try to operate it without fuel—and in this case the fuel that is needed is a new spirit, to replace the detached attitude which so many woolen and worsted manufacturers have borne toward this industry-wide job.

Never before has a united front been needed so acutely in the wool branch of the textile industry. Never before has its potential reward been more assured.

The Week in Textiles

Research Institute to Organize . . .

PERMANENT ORGANIZATION of United States Institute for Textile Research is to be effected at first annual meeting to be held at Chemists Club, New York, Thursday of next week, at 10 a.m. Institute has been functioning since July as preliminary body of 24 directors. All present officers and directors are serving with the understanding that their resignations will be accepted at annual meeting, with idea of securing executive staff as fully representative of every major branch of the industry as possible. . . . . Tentative by-laws as revised by executive committee are ready for adoption at the meeting. . . . . Realizing that the future of the Institute depends to a large degree upon reputation and ability of its administrative head, preliminary officers unofficially express confidence that they have found the right man and have prevailed upon one of the outstanding research authorities of the country to accept the presidency. Naturally his identity will not be disclosed until his actual election takes place.

Cotton Parachutes . . .

A NEW TYPE of cotton parachute has been certified by the aeronautics branch of the Department of Commerce as standard equipment for commercial aviators, according to advices received by the New Uses Section of The Cotton-Textile Institute. . . . . The new cotton parachutes successfully passed the tests required by the Department of Commerce, including live drops from an elevation of 2,000 ft., and high-speed tests with a 600-pound weight from a plane flying at 100 to 125 miles per hour. An unofficial tabulation showed that the cotton parachute opened in eleven of the twelve trials in 2.8 seconds or less.

The Business Outlook

"As we near the end of October, when activity is usually at its fall peak, it becomes clearer that business this year has failed to respond in full measure even to the usual seasonal expectations. This is more clearly evident in primary production and distribution than in general trade, which still appears to be moving on and up to its holiday high point. . . . Our preliminary index for the week ended Oct. 25 fell further, from 84.3% to 83.2% of normal, a new low level in the current recession, reflecting relative slackening in steel, coal and electric power production, merchandise carloadings and building contracting. The sustained strength of residential building, especially in the New York metropolitan area, relative improvement in railroad earnings, steady reduction of stocks of staple cotton, wool textiles and lumber, and continued stability of commodity prices are moderately bullish portents of recuperation."—*The Business Week*

The Textile Outlook

The cotton goods industry remains the model among the textile group which others would do well to emulate. Further activity in the market and restraint on the producing end have improved the statistical position of cotton goods mills and the advance in raw cotton this week holds out hope for a more stable situation. Though many variables enter in it is thought possible that bottom has been passed in both raw material and goods. . . . Wool goods, although lagging behind, have improved their statistical position. First hand stocks are now equal to one month's deliveries. More confidence among buyers and in raw wool values is needed. . . . Raw silk experienced a rally followed by reaction but a small gain was recorded. The outlook is better although mills are still doubtful of silk's stability. Knit goods are holding their own. Cooler weather helped seasonable goods. Full fashioned lines uncertain; half hose stronger.

Hand-to-Mouth Dealing . . .

H. C. ABERLE CO., Philadelphia full-fashioned hosiery manufacturers, long in disagreement with their union workers, after much consideration, have decided that it will be impossible for them to conclude a year's contract with American Federation of Full-Fashioned Hosiery Workers. . . . . Officials say they buy raw materials hand-to-mouth and cannot commit themselves in matter of labor so far ahead.

Fabric Footwear Gaining . . .

FABRIC SHOES scored a high mark in predicted feminine acceptance for the seasons ahead at the Spring Footwear Styles Conference, recently held in New York. Thousands of shoe manufacturers and retail merchants from all sections of the country heard stylists and fashion editors of trade and national consumer magazines declare that dyeable fabrics, multicolored brocades, tweeds, and a wide variety of other weaves would soon be in big demand for Palm Beach wear, and later for late spring and summer wear in other parts of the country. . . . . Evening shoes might be trimmed in silver or gold kid; the forepart of a shoe

may be of satin and the quarter of kid. Attention was called to the colorful pajama mode, with slippers equally colorful; attention was also called to the satin slipper, to match milady's jewels. Slippers in jewel colors to contrast with black or white evening gowns, were prominently mentioned; also combinations of fabric materials will continue in importance. Black fabrics in silk crepe, moire or satin, with kid trim were mentioned as third in the evening slipper selection; dyeable fabrics were first; multi-colored brocades, as second. Attention was called to the increased use of fabric tennis shoes, with rope soles; also to the high shades in fabrics often done in linen.

New Cottons on Show . . .

NEW COLLECTION of cotton dress fabrics for the fall and winter season has just been placed on exhibition at the U. S. National Museum in Washington through cooperation with the Cotton-Textile Institute. This new exhibit replaces the first display assembled by the Institute which was on view to tens of thousands of visitors during the summer. . . . . The new collection includes a number of heavier cottons in new designs and in new colors suitable for fall and winter wear. As in the case of the Institute's first exhibit in the Museum all the fabrics were designed and made in American cotton mills from American grown cotton. . . . . The new exhibit continues to occupy a prominent position in the same gallery with Colonel Charles A. Lindbergh's trans-Atlantic plane, the "Spirit of St. Louis."

Wool Goods Stocks Low . . .

WOOL GOODS statistics issued Oct. 28 by the Wool Institute indicate a stock in first hands of only 30 days' supply at present rate of delivery. . . . . Production in September was 3,942,501 yd., a decline of 18% from August, billings were 4,931,988, a decline of 11%, and stocks at end of September were 4,970,835, a decline of 23%. . . . . "Although September activities show a seasonal decrease from August," says President Whiteside, "the favorable ratio of production to billings has placed the industry in an ideal position to benefit immediately by anticipated increase in activities."

Government as Buyer . . .

DEPARTMENTS OF the Federal Government purchase annually more than 200 different items of cotton textiles, according to a report just compiled by the New Uses Section of The Cotton-Textile Institute. These purchases include a variety of standard cloths, processed fabrics and other types of goods.

Rayon Price Rumors Should Be Answered

MUST rayon consumers experience two months of uncertainty as to trend of yarn prices for the first quarter of the year?

Upon the answer to this question depends the development of the market for rayon during the remainder of the year.

When the sharp reduction was effected in July, there seemed to be every reason to expect a stable basis for some time to come. Buyers commenced to operate more freely—and indications pointed to satisfactory progress for the closing months of 1930.

But once more rumors of a price cut are rife.

Yarn producers cannot be held responsible for the existence of these rumors. They have been current almost constantly for the last several years—and probably always will be with us.

However the producers *are* responsible if they do not attempt to answer these reports in a convincing manner.

It is not sufficient for them to express the belief that there will be no general price reduction prior to Jan. 1, as our rayon editor reports. Nor is it conducive to market stability for them to advise customers that there is "real likelihood" of a cut during or after the holiday period.

The latter is merely an unconfirmed report. We do not know whether or not such statements have been made. We do know, however, that there is grave uncertainty, not among professional rumor-mongers, but among the rank and file of rayon users.

Is there, or is there not, justification for a downward revision of quotations at this time? Every producer with whom we have talked recently, has stated emphatically that there is not; that current levels are unprofitable; that an advance, rather than a reduction, is justified.

If this is true today, there is no reason to expect the contrary to be true after Jan. 1. If it is not true, a cut should be announced at once. If the only revision to be expected is an industry-wide application of the 5% discount granted to all its customers by one company, this too should be stated.

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The producers have the answer to the question. They owe it to their customers and to themselves to state that answer, publicly and emphatically, now — not two months from now.

They cannot pass the buck by stating that buyers are pressing them for lower prices, and that, if one section of the producing market yields, the whole trade will have to follow.

We believe we know the attitude of mill consumers toward rayon prices. They are *not* clamoring for a reduction. Naturally they will accept any unprofitable price level the yarn producers are weak enough to offer. But what they really want is price stability—and they are entitled to it.

It is up to the producers to give it to them.

STAGING THE FIGHT AGAINST

Sixth Article in Series

Constant Improvement of Equipment a Necessity, Finds Talbot Mills

An Interview by J. A. Austin with

Thomas T. Clark

President and Treasurer, Talbot Mills

SOME ten years ago, after considerable deliberation the Talbot Mills came to the decision that a thorough modernization of plant and equipment was necessary. Such a decision, of course, did not mean a sudden and dramatic house cleaning with subsequent lassitude, but rather a continuous policy of revamping and re-equipping. The factors of production cost and quality were, necessarily, the prime considerations involved in reaching the decision, but essentially the question was whether the mill should, for long, remain in business. The answer being in the affirmative, modernization had to follow.

It was soon discovered that the old buildings were, in many cases, unsuitable for new machinery, which would deliver the maximum advantages only under proper working conditions. The carding department was first studied. New cards were needed but they could not be installed advantageously in the old building. Consequently, in 1922, a new building was erected which would house the carding and spinning equipment.

Investing in a new textile mill building in 1922—or since then for that matter—scarcely offered the security of Government bonds, since the saleable value was far less than the construction cost, but you cannot sit around in an obsolete plant waiting for business to get better before spending any money. The spells when an obsolete plant can make money are too few and far between.

The card room was the first major job tackled. As now operated the cards have tape condensors, vacuum strippers, and the stock is blown to the bins from the pickers. Part of the spinning equipment was modernized before moving into the new building and the balance replaced with new equipment.

Every Department Studied

From 1922 to 1929 each department of the mill was scrutinized carefully. In some cases rebuilding would make a machine efficient, in others new machines were necessary. No one definite method for finding out about new machinery was considered sufficient. Salesman's calls, publications, and contacts with other mill men all served to open plenty of leads. The officers of the concern personally carried on the investigations and often visited other plants to secure information, extending a like hospitality to other mill men since we possess no "secrets." Every means of securing information was utilized when planning a new installation and sometimes, though not often, a trial unit was studied.

Most of the machinery replaced was not worn out. It had been kept in good repair and was "running as well as ever," but it was obsolete. Departmental repair records served as a check to show when it was economical to buy new machinery rather than repair the old. Numerous changes from the boiler room up to the dry fin-

Modern coal handling equipment is but one of the many improvements made at Talbot Mills

WEAR AND OBSOLESCENCE

Talbot Mills of North Billerica, Mass., is doing a thorough job of modernization

ishing were made—with looms, of course, receiving a goodly share of attention.

Five years was considered the time in which a new machine should pay for itself, but this figure was more in the nature of a target than a hard and fast rule since varying conditions tempered each decision.

Naturally such investigations and replacements as have been described did not cease in 1922. They have been continued, and it appears that such a procedure will always be necessary. It is merely that 1929 saw another major step in the building of a new dyehouse. The old one was not a place where either men or machinery could be expected to operate at maximum efficiency so a modern building was erected. Some of the old machinery was overhauled and some new purchased. Moving into the dyehouse offered an opportunity to rearrange the equipment in keeping with modern practice.

New Wet Finishing Building Necessary

In June, 1930, it was decided to erect a new wet finishing building. Business conditions this year have not inspired much optimism but construction work, or placing machinery can be carried out more advantageously during slack times than during boom days when everything is rushing. In the first place work can be done more cheaply, the job accomplished with greater speed due to ease in securing workers, and the work running through the mill is disturbed less. In the second place it is best to be all ready for better business when it comes.

In moving into the new wet finishing building, which is now under construction, some new machinery has been purchased and some of the old rebuilt. An interesting problem arose when it came to re-locating the tenter dryer. This machine was 23 years old, but had been completely rebuilt in 1923, equipped with a modern ventilating and housing system, and was as efficient as any new machine. However, taking into consideration the difficulties and delays in moving the old machinery, it proved more economical to place a new machine in the new location, and junk the old. Incidentally, it is increasingly difficult to sell second-hand machinery, and junking has become more prevalent.

Machinery builders are today more on their toes than they have ever been. About ten years ago we wanted a new carbonizing dryer, but during the succeeding three years improvements were so rapid that the matter could not be settled. Since that time so many improvements have been made that the machine purchased seven years ago is in a fair way to becoming obsolete at the present time. Dolly washers were practically the same for ages, but, during the last year or so, machinery manufacturers have studied the problem and the result has been machines with greater speed and efficiency. These are just two of the less obvious paths of development work and serve to show the change from the old days.

Spend or Sink

Depreciation is charged off in accordance with what the Government will allow in tax returns, different rates, of course, being charged for different classes of machinery and plant. When it is necessary to replace a machine before it is entirely written off, the balance is charged to profit and loss for that year.

Mortality in machinery is increasing, due to the increased activity of machinery manufacturers, and it seems probable that the usual depreciation rates in present use will be less, rather than more, adequate in the future. Obsolescence is something which pops up overnight and it is impossible to plan for it adequately in advance. All told it looks as though we could never sit back and say that we are now in a position where we don't need to spend any more money for quite a time.

Talbot Mills have gone ahead and spent considerable sums of money during years when prospects looked none too healthy, but efficient production and high quality are more than ever a necessity when business is poor. Expending funds on a textile plant does not appear an attractive proposition, since the realizable cash value is so much less than the actual expenditure, but analysis will prove it to be an economical sound move, and what is more, a necessity. Comparison of present-day costs with production costs of ten years ago will prove that Talbot would have gone out of business years ago if plant, equipment, and methods had not been modernized.

Observers at Greenville Show Found Confidence Instead of Gloom

THIS particular visitor to the Southern Textile Exposition at Greenville, S. C., returned home with the usual mental collection—or rather, disarray—of facts and impressions.

During and after a week-end of rest, they began to assume some semblance of order—particularly order of importance.

Leading the field, beyond question, was this one impression: That improvement among textile mills—especially cotton mills — has been more general and more substantial than is realized.

Almost without exception, executives with whom we talked displayed a confidence that had been sadly lacking since last fall. Almost without exception, observers told us that they had been amazed at the sentiment they encountered—a sentiment radically different from that they had anticipated.

Our last previous trip South had been in the latter part of August. We had left New York at its gloomiest. From the time we touched the first city in the Piedmont, until we entrained for home, we accumulated evidence of a turn for the better—halting evidence, it is true, and not by any means unanimous, but sufficient to indicate a trend. This information was substantiated by the survey of the industry we made three weeks ago. Further conviction was supplied at Greenville last week.

Men in other lines of industry have had similar experiences recently. They have left New York, convinced that the country was going to the dogs, and later returned from industrial centers convinced that things weren't so bad after all. It is the old story of being too close to the stock-ticker—of seeing national industrial movements through glasses tinged with the gray of a 4-point decline in United Ice Cream Pfd.

This does not mean that mill executives are all set for a joy-ride. At least we hope it doesn't. If any are kidding themselves into the belief that the lid is off, and that they can go merrily ahead producing as fast as their machinery will turn, they have another headache coming.

It does mean, however, that they see some chance of a return on the investment of thought and common sense they have made during the last few years, and particularly during the last year. It means that they believe they may expect black ink instead of red, providing they keep one eye on the balance between production and demand, and the other eye on the relationship between prices and profits. In other words, it means they have a fighting chance. And what more should we ask in 1930?

What Price Textiles?

By S. Robert Glassford

Of Bliss, Fabyan & Co., and president of Association of Cotton Textile Merchants of New York

TEXTILES lie almost completely in the field of necessities.

A market is a controlled state of mind.

When the consuming public becomes convinced that there is a pot of gold at the foot of the rainbow their state of mind is such that no real market for necessities can exist.

The textile industry has for some years been the victim of rainbow chasing on the part of its customers.

The gold rush is over—and nobody caught the rainbow or found the pot of gold.

Necessity is reestablished in the vocabulary of the people, and industry, in the sense of productive effort, is creeping back.

The deepest oceanic deeps are relatively but a thumbnail dent in the earth's surface.

So-called business depression is no greater in the solid industrious prosperity of the country.

The textile industry is coming into its own. Its house is cleaned, and its lamps are now trimmed and burning.

A country at productive work will buy textiles and if properly supplied they will be profitably supplied.

Opportunity is knocking at textile doors. But not at the doors of the faint hearted or the unenlightened and unashamed.

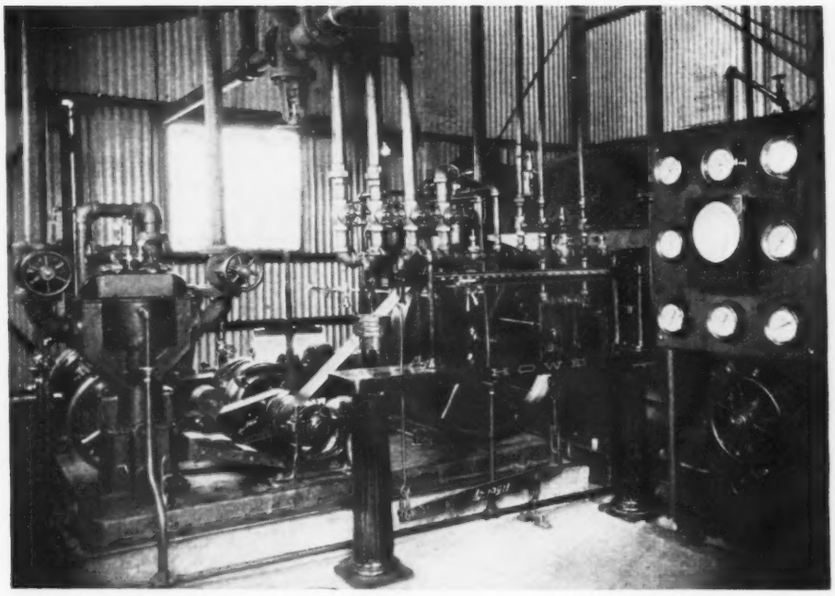
Those who have need to buy need also constructive sympathetic understanding of their problems and they will buy where they can get it.

The textile industry outranks all but food production in the service it renders mankind and reaches in its scope from the lowly pure utility to the heights of aesthetic art.

The weaver's shuttle antedates the knife and fork by thousands of years. Civilizations have risen and fallen, arts have been developed and lost, but textiles go on from a glorious past to a still more glorious future.

It is here in our hands—the heritage of hundreds of years of uninterrupted progress, the fruit of the hand and brain of civilized endeavor. It has survived plague and pestilence, flood and fire, war and rumors of war.

What account are we going to give of our trusteeship?



Pressure treatment in a commercial wood-preserving plant is subject to scientific control

Wood Preservation *with Zinc Chloride Finds Place in Textile Industry*

By Harry E. Tufft

Engineer, The Grasselli Chemical Co., Inc.

IN RECENT years numerous large textile mills have been erected which are representative of best engineering and architectural practice. Among them are included rayon mills, cotton mills, silk mills, bleacheries, dye houses, and print works. Zinc-chloride-treated lumber has been employed extensively as a structural material for roofing, subflooring, and supports in a number of these modern establishments. Some of the larger installations contain from 250,000 board feet to over 1,000,000 board feet of zinc-chloride-treated lumber. In the design of these buildings, the objectives have been greater permanence and lower cost of maintenance.

Zinc chloride has been a leading wood preservative for over 50 years, approximately 23,000,000 lb. being used annually in treating over 500,000,000 board feet of cross ties, switch ties, lumber in textile mills, paper mills, mine timbers, highway guards, posts, poles, and miscellaneous structures. Many of these installations have been in service from fifteen to over twenty years in mines, railway tracks, posts, and structures where untreated wood under similar conditions decays in two to ten years. It is only in recent years, however, that treated lumber has been used to any appreciable extent in textile and other mill buildings of wood construction. The use of treated lumber in mill buildings is now recognized by leading mill architects and engineers as good practice for protecting those parts of the structure where rot is likely to attack untreated wood.

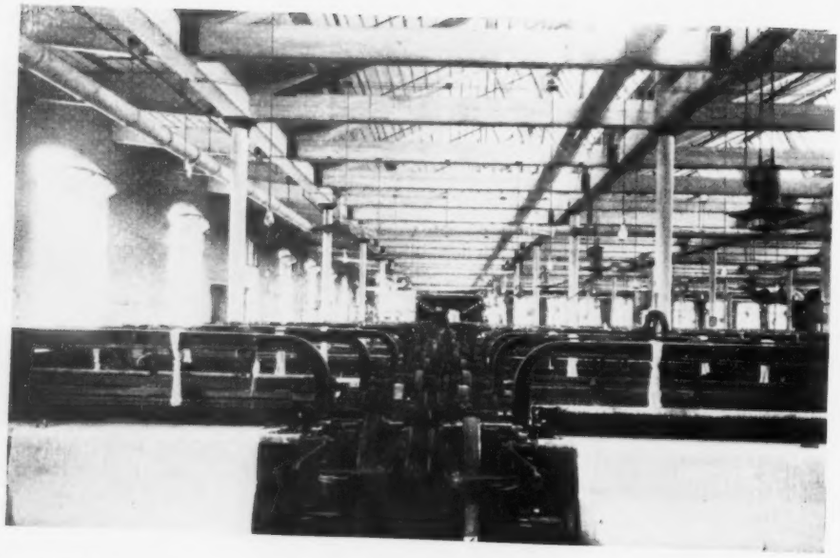
Lumber is one of the most satisfactory materials for mill construction, in respect to strength and insulating value. Attractive appearance and good visibility, contributing to the health and comfort of workers, are provided by painting interiors of zinc-chloride-treated wood with white or light-colored paints. Exteriors can be painted in designs to harmonize with the mill surroundings. Protection against rot and insects is provided by zinc-chloride treatment.

Untreated Wood Decays Rapidly

Rot in wood is caused by fungi—low forms of plant life, which grow in wood and feed on the wood substance, eventually destroying it. Fungi flourish best in humid, warm conditions, which are often present in textile mills. Premature decay in mill buildings constructed of untreated timber often necessitates expensive repairs or replacements within a relatively short period of service. In many textile plants, roofs, subfloors, and supports of untreated lumber have been so weakened by rot as to require repairs or renewals in six to ten years, even when constructed of the more durable and expensive grades of heartwood lumber. Treated lumber of cheaper grades would have lasted two to three times longer.

Numerous large-scale installations of zinc-chloride-treated wood in railway cross ties, switch ties, loading platforms, posts, poles, and fences have demonstrated that under these exposed conditions of service and increase of two to ten times the life of untreated wood can be expected. For use in the partly protected situations afforded in buildings, with also the additional protection given by painting exposed surfaces, zinc-chloride-treated wood may be considered as permanent construction. By permanent construction is meant a serviceable structure during the useful life of a mill building before the plant becomes obsolete or requires extensive remodeling.

Trouble from rot in textile mill buildings of wood



In this weave room at Danville, Va., roof timbers were treated with zinc chloride to prevent decay

construction is common experience in those departments where moisture is present from the manufacturing operations—as in weave sheds, dyehouses, bleacheries, finishing rooms, and drying rooms, where warm, humid atmospheres are prevalent.

The processes of manufacturing rayon, cotton, and other yarns, and of weaving, coloring, and finishing textile fabrics are mostly conducted while the materials are wet or become wet during the process.

Humidity is necessary in manufacturing cotton and other yarns to prevent breakage of fibers and accumulation of static electricity on the fiber. Humidities of 70 to 80% are often present, resulting in conditions favorable to decay, especially near the roof. Temperature variations, due to daily or seasonal variations in the outside atmospheres, tend to cause condensation and thereby accelerate decay.

Warm, Moist Air Promotes Rot

A fabric may be wet and dried from two to eight times in the course of its manufacture. Much of the drying is done on machines of the contact type, such as the dry can, which liberate large amounts of warm, vapor-laden air, or in heated compartments which liberate moisture into the mill atmosphere. The moist, warm atmospheres in dye-houses, bleacheries, and print works are highly conducive to fungus growth in roofs of untreated lumber. Roof beams are also subject to fungus attack, especially at points of support, joints, and where they are in contact with the roof planking.

As a rule the temperature of the air outside the building is at a lower temperature than the atmosphere within the building, especially at night, on cool days in summer, and during cold weather. When warm, moist air meets the colder layer of air near the roof or penetrates into the joints between the planking, sufficient moisture is deposited to keep the roof plank in a condition extremely favorable to rot.

Various types of roof construction designed to reduce condensation are in use. Experience has shown that fabrics during manufacture can be protected from dripping by providing a roof of sufficient insulating properties; but it is difficult to maintain a wood roof of untreated lumber. Hoods, fans, ventilators, and other devices are often provided to protect the roof by removal of vapor; but even under the best operating conditions, considerable amounts of vapor are liberated. Whatever type of roof or ventilation is employed, the best and cheapest protection against rot is to use treated lumber for all new construction and in repairing old roofs.

Lumber for construction of roofs over humid sections of the plant should be treated before installation. After decay has set in, little can be done to check its spread. Surface applications of preservative by brushing or spraying affect only the exposed surface of the wood. Heat treatments may temporarily check fungus growths, but any fungus not killed by this treatment will continue to grow after the heat treatment has been applied, and the sterilized wood may again be infected by fungus attack. Various types of insulation are used to protect the exterior side of the wood planking from outdoor temperature changes and to aid in preventing condensation within the wood planking or on the under surface. The insulation may be of waterproof roofing composition, or covered with a waterproof covering. When untreated lumber is used in such construction, it is practically certain to rot if dampness penetrates into the wood or into the joints of the planking from beneath. Use of treated lumber of the cheaper grades is far more economical than use of select grades of untreated heart lumber which may have to be replaced in seven or eight years. In wood roofs constructed of thick planking, in some localities the only additional insulation required may be several plies of waterproof composition roofing.

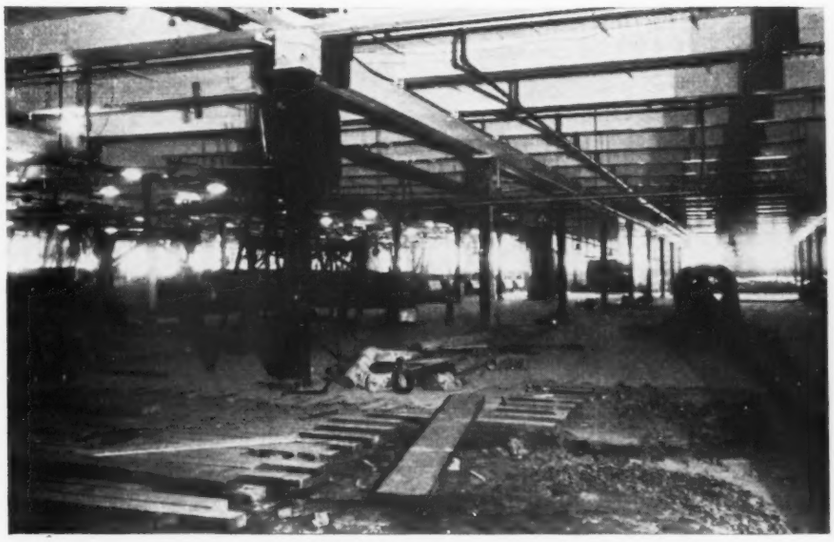
The use of treated roofing also guards against possible leaks in the insulation cover, which usually would cause premature rotting of untreated roofing.

Roof Construction

Roof decks constructed of two layers of good planking, with an air space between them and separated by nailing strips, have been suggested as a good design. It is especially important to use treated lumber for the upper deck and the nailing strips, and it would also be a precaution to use treated lumber for the lower decking which forms the finished ceiling.

Wood sheathing or other insulation applied to the inside of a roof tends to rot untreated roof planking and roof beams. In some installations of this type in New England cotton mills, sheathed roofing planks and beams have been destroyed by rot in eight to nine years. Treated lumber for such installations is recommended.

Wood floors in textile mills have the advantages of quietness, resiliency, and warmth. Subfloors and sleepers over damp basements, and the subfloors of structures without basements tend to rot quickly when constructed of untreated wood.



Planks treated with zinc chloride were used for subflooring in this modern cotton mill

Some typical examples of modern mill construction using treated lumber follow: In the plant of the Bemis Bag Co., Bemiston, Ala., completed in the spring of 1929, approximately 789,000 board feet of Southern pine lumber, treated with zinc chloride in a commercial wood-preserving plant by the full-cell pressure process, was used in the roof and subfloors. Plants of the Du Pont Rayon Co., Waynesboro, Va., Richmond, Va., Buffalo, N. Y., and Old Hickory, Tenn., have installations of zinc-chloride-treated roofing aggregating over 700,000 board feet.

The bleachery of the Fairforest Finishing Co., Spartansburg, S. C., is a one-story structure with basement, 78 x 242 ft. The installation contains 227,000 board feet of zinc-chloride-treated timber. All of the lumber for columns, roof beams, and planking were treated with zinc chloride. The floor beams are creosoted. The zinc-chloride-treated roof beams are supported on steel girders.

Interesting examples of repair work on large cotton-mill buildings originally constructed with untreated wood roof and subfloors are the renewals made at Riverside and Dan River Cotton Mills, Danville, Ga. The first buildings of this mill were erected in 1903, and from time to time additions have been erected. In recent years, it has been necessary to replace decayed roofs of various buildings. In order to eliminate such expensive repair work in the future, all replacements for the past several years have been made with zinc-chloride-treated lumber. Approximately 450,000 board feet of treated roofing and sub-flooring has been installed. The large brick weave room was recently converted from one story to two stories in height. The old wood roof was found to be severely decayed, and treated lumber was employed for the new roof, and also for new subfloors. A basement has been provided by excavating beneath the original building, and the basement floor is of a type often found in mill buildings. The subfloor consists of 3-in. planks, which are toe-nailed together and rest on a tar-concrete base. The planks, which are pressure treated with zinc chloride, were laid while the tar was still hot to insure a firm contact. The floor is of untreated maple.

Treated Wood for Floors

While some engineers favor this type of floor, others prefer to use treated sleepers resting on or imbedded in the tarred-concrete base. The floors in the warehouses of the Dunson Mills, La Grange, Ga., are examples of this form of construction. Sleepers or nailing strips treated with zinc chloride, are embedded flush with the upper surface of a tarred-concrete base. Planks of 3-in., square-edge pine, treated with zinc chloride, are securely nailed to the sleepers. In these warehouses, used for storage of cotton, there is practically no wear on the floor; therefore, no top floor was provided.

In addition to the eight mills mentioned above, installations of zinc-chloride-treated lumber have been made in 35 other textile mills erected in recent years, also in a number of dwellings in mill towns. In most establishments having installations of zinc-chloride-treated lumber, exposed surfaces of roofing and timbers are painted for better visibility. Various brands of mill-white paints give just as good service as they would on untreated wood.

Long-time commercial installations, as well as paint tests of the Paint and Varnish Association, and the U. S. government, show that in general zinc-chloride-treated wood, when properly dried before the paint is applied, holds paint equally as well as does wood that is untreated.

Under changing conditions of humidity and temperature. wood treated with zinc chloride also conforms closely to untreated wood in properties of expansion, contraction, and moisture absorption. Installations of treated wood under conditions ordinarily encountered in practice show that with the concentrations or strength of solution used in commercial practice, the zinc chloride stays in the wood and does not tend to exude or effloresce and thereby affect paint coatings or fabrics in course of manufacture. The standard specifications for zinc-chloride treatment, of the American Wood Preservers Association, call for a minimum retention of $\frac{1}{2}$ to 1 lb. of zinc chloride, dry basis, per cu.ft. of wood, (40 to 80 lb. per 1,000, board feet). A minimum of $\frac{3}{4}$ to 1 lb. per cu.ft. (60 to 80 lb. per 1,000 board feet) is recommended for lumber used in mill construction.

Experience in textile mills has shown that decayed, untreated wood in beams, roofs, and floors is a serious fire hazard. In the event of a fire, punky or rotton wood burns much more rapidly than sound wood. Zinc-chloride treatment, by keeping the wood sound, preserves the strength of the structure, and also reduces the inflammability of the wood. Recent experiments of the U. S. Forest Service show that zinc chloride compares very closely to diammonium phosphate, but for complete flameproofing, larger retentions are required than is feasible in commercial practice.

Cleaning Cotton Machinery to Improve Quality Without Losing Production

Discussion by Eastern Carolina Division of Southern Textile Association

THE Eastern Carolina Division of the Southern Textile Association met in the auditorium of the Erwin Mill, West Durham, N. C., on Friday, Oct. 17, 1930. Norman B. Hill, superintendent of the Caswell Cotton Mill, Kinston, was chairman of the meeting. The invocation was said by the Rev. H. P. Rupenthal, of Durham. An address of welcome was made by W. F. Carr, of Durham, responded to by W. C. Taylor, secretary-treasurer, Southern Textile Association.

The main topic for discussion at the meeting was the cleaning of machinery. Carl R. Harris, manufacturing engineer, Erwin Cotton Mills Co., Durham, opened the discussion.

"If we can only realize," said Mr. Harris, "that cleaning is one of the most important problems in the mill and has more to do with our quality and quantity than any other one thing, we would probably go into it a great deal deeper than we ever have before. I venture to say that in the average weave mill 25% or more of our loom stops are caused by foreign materials of some kind which have gotten into the yarn in one way or another.

"I know one occasion when I put up a very strong appeal for compressed air, feeling it was absolutely necessary to keep the mill in proper condition. Today there is a tendency to get away from compressed air; in fact, there is a tendency to go to the vacuum system. It is wrong to take lint that has settled on machines and walls and floor and blow it all over the mill.

"I doubt that you could go into the mills around in this section today and find card hands using cloth flaps to flap off cards. It is usual practice to use brushes to clean off cards. Brushes, however, should be handled with a great deal of care. I do not think a brush of any kind should be put on the front of a card; I think it should be wiped off with a wad of waste. I often go into a mill and see the card hands brushing off the cards and dropping lumps into the web. That will make weak yarn.

"Then frequently we see flaps used on the drawing frames. It is absolutely the wrong principle to blow or fan the lint, because it is going to settle somewhere. In working out any cleaning system it should be the aim to remove that material, not to fan it into some other part of the mill.

"Now, as one general practice on frames in the card room, we see quite generally whisk brooms of one kind or another, probably fans, etc. There is a tendency absolutely to eliminate whisk brooms. Various systems of cleaning can be worked out on frames that will certainly be advantageous and a good deal better than we have used. For instance, I know of several mills (and it is possibly the most general custom) in doffing speeders and frames to lay up the front set of flyers, doff the front set of bobbins, put on empty bobbins, and then doff the back row. It is good practice, as the frame is doffed, to wipe the flyers and lay them up on the spindle boards. Before those bobbins are removed from the spindle, the spindle should be picked. At the same time, you can very easily get to the creel boards and wipe those, the back spindle boards, and the carriage.

"When we come to spinning, there are so many ill practices there that I would hardly attempt to name all of them. It is a general custom to run out the guideboards three times a day or four times a day, wipe the back guides three times a day, wipe the creels two or three times a week, and brush off the rolls with a whisk broom maybe two or three times a day. In every one of those operations you will find foreign matter is being collected in the yarn. I do not believe in a whisk broom being used on a spinning frame at all. You may say you clean the frame only when it is standing, but the machine next to it may be running and the damage done to that rather than to the one that is standing. A rail wiper or brush made out of yarn and made long enough is very good. If the spinner can carry a guide brush with her and use it every time she goes up and down an alley, it will work out very nicely. As for wiping back guides, they should never be wiped through the yarn. A very good method is to string those back guides. It is very easy to take a short stick and make a brush of cloth on that and just string it through the back guides.

"It is the general custom on the creels to lay up two layers of roving, probably one at each end of the frame. Now, most mills have some custom of working off that roving at certain periods. That is very good, but even at that you will have the roving lying on top of that frame for a long time, and the longer it stays there the more lint it will collect. That can be remedied to a certain extent by laying only one layer of roving the length of the frame and running some frames empty every day.

"It is a very easy matter, and you will find it is a practice in some fine-goods mills, to furnish spinners with aprons. As she takes the bobbins out of the frame empty, she will put them in her apron, and then drop them into some suitable receptacle as she passes it. In a large room it makes the removal of bobbins so much easier that I have seen one roving man removed or sometimes two men removed from that work."

The carding discussion was conducted by M. R. Vick, overseer of carding, No. 1 Mill of Rosemary Mfg. Co.

With reference to the cleaning of cards, G. M. Gurley, carder of Rosemary No. 3, Rosemary, N. C., said, "I don't think it is a mistake to flap off the back of a card; I do think it is a mistake at the front. If you flap off the front of the card, the calender roll is going so much faster than the feed roll that the waste will go in before you can pick it off. If you flap off the back and anything drops in there, you can pick it off."

Regarding the cleaning of ceilings, M. R. Harden, superintendent of Erwin Mill No. 1, Durham, N. C., said, "It is not necessary to bring that stuff down all over everything; I mean to say you do not have to bring it into the work. If brushing down is not to be done during running hours, it can be handled all right. The stuff will fall on the machines, but it can be wiped off them before you start them. But where brushing down has to be done in working hours, just brush down a portion of the ceiling at a time, over where the machines are not running. Brushing down overhead is necessary in order to keep a clean ceiling, and also a clean mill.

"When bobbins are stacked up straight in the roving boxes," added Mr. Harden, "there is an accumulation of dirty waste in the base of the bobbin; and when that full bobbin is thrown in on top of the other roving on top of the doffing truck, it has a tendency to leave a black spot or a dirty streak. The fly that has accumulated there while in operation will leave a dirty slub in the roving. Proper packing does not increase the time as much as one would think. We use one spare hand to assist in the doffing of the frames, because we find we get more production. We wipe the carriage off and pick the spindles and the bobbins, all while the machine is being doffed. One fellow takes off two bobbins at a time and lays them lengthwise in the box."

Norman B. Hill, Chairman, Eastern Carolina Division of the Southern Textile Association

C. S. Tatum, manager of the Consolidated Textile Corporation, Raleigh, N. C., joined the discussion with the remark that he used that method for a while but only on Monday, after oiling the spindles. "We found it did slow down the running some," he stated. "We oiled our spindles only on Monday and found after four or five doffs it did not get oil on the bobbins." In reply to a question he stated that he did not refer to oiling of the bolsters.

"Right there is where we are getting a lot of trouble," remarked Chairman Vick, "because the oil will run down. The man is in a hurry to get through and shoots the oil in. I believe if a man never starts to oil a new frame, he will never have any trouble getting his flyers off. I believe the oil in the flyer holds the dust that goes there. It is not rust that holds the flyer on and makes it hard to get off; it is the little accumulation that the oil has caused to come there and that would not be there if the spindle were left dry. Sometimes those ends have been battered a little, and that holds the flyers on. Those ends need to be reamed out. You may think oil will help, but the next time it will be just as hard to get them off. My opinion is that we should never start to oil the spindles, because a bolster is not a bearing that will wear. There is no chance of heating a spindle or a bolster by leaving off oil, and I know the only trouble I have ever seen from hot spindles was from oil and accumulation of dust and dirt."

B. T. Bumgardner, carder of the Eno Cotton Mills, Hillsboro, N. C., did not wholly agree with Mr. Vick. "Those spindles, and flyers, too," he said, "will get rough if you don't oil the tops of the spindles—I mean take a little greasy waste and wipe them; I don't mean take an oil can and squirt the oil in there. If you oil them in that way, the fly will come off easily; if you do not you will find it hard to get them off. I have seen men take a hammer to knock the flyers off. I have not been oiling spindles for several years. A thin oil, like a spindle oil, will make it slick and not gummy, but if you take a real oil such as we oil the machines with and oil spindles with it you will have them all choked up. We oil the bobbin gear once a week; if that is not done it will cut off on you."

The belief that one of the most important means for keeping slubs out of the work is to keep the clearers clean on drawing was voiced by T. E. Ratcliffe, overseer of carding at the Durham Cotton Mfg. Co., East Durham, N. C. "We have two sets of under clearers," he said. "Of course some of you have the revolving and some do not have the revolving top clearers. Experience has shown that it is just as important to keep the under clearer clean as the top, and the back as the front. Of course, it is a little hard, but we should not minimize the importance of it. In the past six months we have gone over them four times a day to six times a day, and have eliminated a good deal of trouble. Another thing; we brush underneath our licker-in screens every day at noon time. Stuff accumulates underneath and stops up, of course, and there is a tendency for it to be carried on in and let the flats take care of it.

"On the oiling question, sometimes operatives neglect cleaning up next to the stand on the steel rollers. Waste will accumulate there and get black, and as the traverse goes up it will bite off a little. Sometimes just two or three frames in the room will have a little of it. That will make an unlimited amount of bad work without your knowing where it comes from. Then around the top clearer, waste may accumulate and make a great big lump; it may accumulate in a half day, and unless somebody constantly looks after those things it becomes a great menace. We have our men understand that they must look after these things each time they pick the clearers. Each time they creel we tell them to look for any foreign matter on the roving while they creel and clean it off. We have the system of the spinner's sending back everything that does not look right, and we are proud of it. By getting him to cooperate we have been able to biuld up the cleanliness of our stock considerably."

"We pay our spinners half a cent for each bad roving that they find," declared F. M. Durham, manager of Durham Hosiery Mills Nos. 4 and 7, Carboro, N. C. "We find this system has worked successfully; in other words, there is some inducement for the spinners to look for bad ends, and it has decreased our bad work about 50%." Another member replied that he has tried that procedure but found that he had "a few dishonest people who would make a little of that work."

"We use the suction system of cleaning in the spool

room," said Mr. Durham. "A boy cleans both ends of the bobbin and cleans the roving. There is a pipe that comes down, and the man sits there and brings the pipe down and cleans both ends of the roving before it is put in the box. He cleans off the greasy fly on the bobbin and also inside the bobbin."

D. F. Lanier, superintendent of the Oxford Cotton Mills, Oxford, N. C., remarked, "We cannot do too much of this picking with the machine standing. Most of our companies want us to run those machines. If we are going to stop our cards, our drawers, our slubbers, and our speeders for all this cleaning, we shall find our production short at the end of the week, I believe. I don't think we have to stop the machine to clean the clearers."

"Your clearer waste to a great extent comes from an accumulation between your rolls," said W. V. Byers, "and when that accumulation gets so much that your stock touches it or your roll bites it off, then you are in trouble; but until it does that, don't pick too much. When the stock begins to lick it off, then is the time to begin picking. I feel that you can overdo the picking."

Perhaps Clean Too Much

"I believe we can clean too much," said A. H. Goodman, spinner of Borden Mfg. Co., Goldsboro, N. C. "I do not mean that we should not keep the machines clean, but there are lots of parts about the speeder and the spooler and the draw frames that ought not to be disturbed too much, because you cannot take a wad of waste in your hand and poke around without getting some of that into the work, and you cannot pick the clearers every few hours without similar trouble. When picking the clearer you should pick front, middle, next middle, and back.

"It is not necessary to get into a creel and wipe twice a day; you are not going to let it stand there and get so big and heavy it will drop in just of itself. I do not believe it is necessary to clean the head of a speeder every day. I do believe it is necessary to clean the spindles every day and wipe the carriages two or three times a day."

"We have a very complete clean-up Saturday morning," said Mr. Tatum, "and we require the frame hands to leave the clearer boards open, the coiler heads up, and everything open over the weekend, so we can go through and find out how complete the clean-up has been."

"Every time we strip the cards," said Mr. Honeycutt, "of course we tear the end down. We flap off front while end runs down, and flap off back while stripping."

"On the front of the card," remarked Mr. Goodman, "I think we can use a loom duster. I am not so much opposed to using a thread mop in front except that it has a tendency to pull the wire down on the selvage and with a loom duster you cannot pull those wires over. I have my hands trained so that just after the card is stripped they take a piece of strip waste and wipe off the front of the card. I would not recommend fanning off."

"Somebody said here this morning," declared Mr. Lanier, "that if you would wipe off the cover between the licker-in and use a flap to get the accumulated dust and fly out of the flats, you are all right. We know that card has to be mopped off occasionally and also know that lint has to be gotten out of those flats. Someone said he had used every conceivable kind of brush and could not get one that was satisfactory. So we have to use air in some form, whether compressed or whether we create a current of air by the use of a flap."

"I think the best point that was made here this morning," said Mr. Tatum, "was that the biggest source of black streaks is in the drawing. One man suggested turning the rolls down and making bosses on them, and that to me overshadows everything else in this meeting. I think that is a very valuable suggestion."

Cleaning in Spinning Room

Part of the afternoon meeting was devoted to a spinning discussion, conducted by J. W. Cates, superintendent, Edenton Cotton Mills, Edenton, N. C. Mr. Cates read a paper written by W. A. Stephens, spinner, Durham Cotton Manufacturing Co., Durham, N. C., as follows:

"My idea and system of cleaning from ceiling to floor, as I have tried to carry out for several years, is to have all overhead brushing of pulleys, ceiling, etc., done at the noon hour or when the machinery is stopped and to have all lint waste carefully removed before starting again. Tops of machines should be wiped off with something that will take up dust and lint, not fanned off.

"The top clearers should be picked often enough to keep them from loading up and letting clearer waste be taken through and spun into yarn. Also, remove top clearers from frames at intervals, go over them with a stiff brush, and clip all raveling that might catch up little balls of waste that can very easily be taken through into the yarn.

"The top rolls should be picked as often as necessary according to numbers and conditions of stock, carefully removing all accumulations of lint on leather or cork. This can be done better while the machinery is in motion.

"The steel rolls should be cleaned at doff times while the machinery is stopped, so that lint and waste which could be taken through from this cleaning and spun into the yarn will either be on the outside of the full bobbin or on the empty bobbin and will be caught at the spoolers or winders, as the case may be. For filling going direct to looms, clean the steel rolls before pulling down the rack for doffing. I have found that to wipe steel rolls often enough will keep them clean and prevent the accumulation that would have to be picked from them. This one thing looked after closely and done at doffing times will keep lots of slugs out of yarn.

"A spinner should never let the yarn drag over the clearer rolls when removing them for cleaning off laps, as it is very little trouble to hold the ends clear while removing or replacing. Always have guide boards clean at doff time so that lint will not be drawn out while removing the clearer rolls afterward.

"Roller beams or back guides should be cleaned by pushing waste under levers and around stands. Never draw waste out between yarn. Ring rails should be wiped as well as brushed off to remove any lubricating oil that is dropped on them while oiling rolls. Under guide boards, separators, shifting rods, and roller weights should be cleaned at doff time for the same reason as in the case of the steel rolls. Spindle rails, bolster casing, and all parts of the frame, including the head from ring rail down, should be gone over and carefully cleaned with gasoline as often as necessary to remove lubricating oil from the surface. I have found that this makes the regular brushing and cleaning much easier and keeps down the growth of cat tails and whiskers that I have been accused by visitors of having on my spindle rails.

"Sweepings should never be swept under the frame and then pulled out from the opposite side, but should

be drawn out from both sides and then pushed out at the end of the alley. In this manner of sweeping there is less danger of waste being thrown up into the bands and of agitation of dust on the floor.

"All cleaning done by spinners should be so arranged that there is an equal amount done each day.

"We require our spinners to break out all greasy streaks and doubles and singlings and pay them half a cent for each," declared Mr. Burns.

"I don't think that compressed air is the thing to use in a spinning room," said Mr. Cates. "I don't think a whisk broom is a good thing to use. But I don't think I could give a concrete formula for cleaning spinning rails or bolster rails without using some method of that type of cleaning. We use both the whisks and the compressed air, but we are gradually eliminating compressed air from our mill."

System of Cleaning

The following paper on a system of cleaning spinning, spooling, and warping machinery was read by E. M. Holt, of Erwin Cotton Mills Co., Durham, N. C.:

"The following system has been worked out in our mill and seems to be fairly satisfactory from the standpoint of keeping loose fly, oil, and slubs out of work:

"Daily Cleanings in Spinning:

"1. Front guides are run out each hour and a cleaning board should be used on which the clearer cloth does not come out to the outer edge but cuts back under the board from about $\frac{3}{8}$ in., so that, when pushing the board through, fly will not collect along the front edge and be spun into the end; rather, it will roll out at the back and be picked out by spinner.

"2. Spindle-rail fronts are wiped over with a brush similar to a floor brush, four times daily.

"3. Top clearers are picked twice daily.

"4. Guide wires are brushed off just before frames are doffed and while frames are standing.

"5. Scavenger rolls are cleaned just after each doff.

"6. Back guides are cleaned once each day. For this a long piece of cloth or felt strips are used. In either case the spinner is not allowed to pull cloth or waste out between ends, but must string it behind stands to the end.

"7. All leather rolls are picked once each day.

"8. Front stands are cleaned once each day with a small wad of waste, but spinners are cautioned against letting ends lick up waste when it is taken between them.

"9. Doffers are required to wipe off heads twice each day and under rockers twice each week.

"In addition to the daily cleaning the weekly cleanings are arranged on a daily schedule so that a more systematic routine may be followed, as follows:

"Monday— Back stands and steel rollers are cleaned.
"Tuesday— Front stands are picked.
"Wednesday— Thread boards are cleaned underneath and roving rods are wiped.
"Thursday— Skewers, creels, spindles cleaned.
"Friday— Rings and roller bars are cleaned.
"Saturday— Creel tops are cleaned.

"In cleaning down overhead, certain sections are cleaned each noon. The section man is required to be present and to see that all fly and other waste are picked out of work before the frames are started. No one is allowed to use a fan in the room. In sweeping across frames, the sweeper pushes the sweeping under the edge of the frame and pulls it out from the other side."

"Spooling: No cleaning is done around spoolers when yarn is being run. After doff is run up, the spooler is allowed to fan off the side with a downward motion. She then cleans the guides and wipes out the inside and top of spooler boxes.

"Warpers: Warper creels are blown off with air after the beam has been finished and before creeling again. With downstroke fans on warpers, this is about all the cleaning that is necessary.

"To take care of roving on tops, ten frames are allowed to run out each day."

"We use a lot of compressed air," said Mr. Byers. "We are a weaving mill, and our final analysis is our warp. We dye our warp, and of course the white work and ours does not exactly fit—the same methods do not apply. Recently we have put in compressed air—not in carding but in our spinning, to blow on our spindle rails and rockers and weights and heads. We blow out the separators. We find we can keep them cleaner with compressed air than with hand cleaning. So at this time we are using compressed air to clean the lower parts of our frame. As I said, the final analysis is our cloth, and we give it very minute examination. We think at the present time we are having less trouble and fewer slubs in the yarn than when we picked it out. We blow while we are running."

"I think," remarked another member, "that there are some places in every mill where you would have to use some air to clean. For instance, on warpers I don't see how you could devise any sort of brush to clean."

Cleaning in Spinning Room

Another paper on cleaning in a spinning room was read by J. O. Creech, overseer of spinning, Selma Cotton Mills, Selma, N. C., as follows:

"Our cleaning schedule is as follows:

"Monday—Clean steel rollers and leather rolls. Wipe back guides four times. Pick top clearers three times. Brush off sides four times. Clean roller bars two times.

"Tuesday—Clean leather rolls. Wipe creels. Wipe back guides four times. Brush off sides four times. Pick top clearers three times. Clean roving traverse rods. Brush ring rails. Clean roller bars two times.

"Wednesday—Clean leather rolls. Brush off sides four times. Wipe back guides four times. Pick top clearers three times. Clean roller bars two times.

"Thursday—Clean leather rolls and stands. Brush off sides four times. Pick top clearers three times. Wipe back guides four times. Clean roller bars two times.

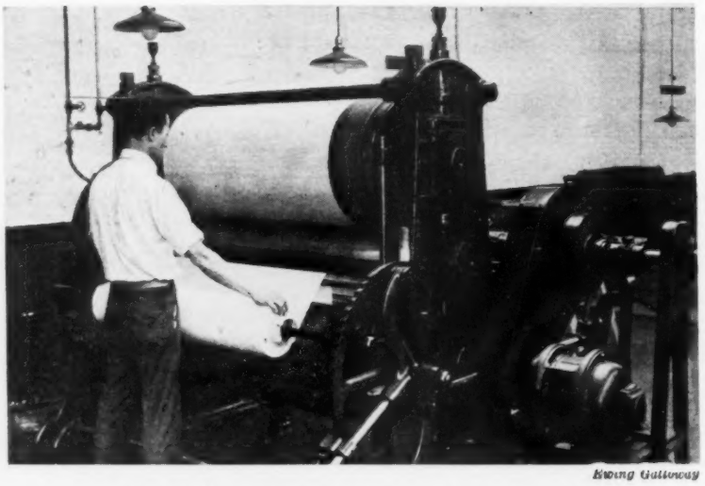
"Friday—Clean leather rolls. Wipe back guides four times. Brush off sides four times. Brush ring rails. Pick top clearers three times. Wipe out creels. Clean heads and ends, gear covers, etc. Brush spindles and clean behind spindle rails. Clean spindle cases, bottom. Clean roller bars two times.

"This is our schedule as we do not run Saturdays.

"We have tried the so-called "clean-up hand system" but did not adopt it because the clean-up hand could not clean enough sides to save anything. I find our spinners all want to clean their own sides, and really I think it best, for by so doing they see all the worn rolls and take notice of any little defect that would cause ends to come down."

Fundamentals of
Cotton Piece-Goods Finishing

By Thomas F. Hughes



Ewing Galloway

Calendering of cotton piece goods requires skill and judgment to produce the required finish.

IN FINISHING cotton piece goods the operations involved are many and varied, and it is doubtful whether any two finishers would employ exactly the same methods to obtain the required handle and appearance on a given fabric. Some of the more common processes employed in finishing cotton piece goods include drying, conditioning, weighting, pure starching, back filling, stretching, calendering, and breaking. Each of these operations is further subdivided; and for each process there are available various types of equipment differing in design, but intended to produce similar results.

Because of these facts it is almost impossible to lay down hard-and-fast rules to be followed in every case and which will be applicable in every plant. It is feasible, however, to point out the general procedure which should be followed in finishing cotton fabrics and to call attention to the precautions which should be taken.

One of the most important points in finishing—and one which is often disregarded—is to obtain the required handle and appearance with the least possible number of runs through the various machines. Too much treatment greatly deteriorates the finish, and at the same time, produces a thin, papery feel instead of a desirable thick and clothy feel. It also increases the costs and lowers the production of the finishing department.

Proper Conditioning Important

Of almost equal importance is proper conditioning of the fabric. Conditioning or damping is carried out in order to replace the natural moisture of the cotton which has been taken out of it by drying. Besides restoring the natural moisture, conditioning adds a slight excess moisture, which is removed in the subsequent processes. Conditioning is always performed before the cloth is calendered. Unless the cloth is properly and sufficiently treated, it will turn up "ragged" and dull, and will have a rough and raw appearance. As a rule, cloth should be thoroughly cold before conditioning, otherwise the moisture will not be absorbed with sufficient ease. After conditioning, the cloth should remain in a cool place for a sufficient length of time to allow the moisture to impregnate the fibers thoroughly and evenly before proceeding with the next operation.

Some finishers, especially those in the white trade, endeavor to condition the cloth while it is being run over the drying cans. It is almost impossible to obtain uniform results by this method no matter how expert the workman may be, as there are a number of factors over which he has no control. In the first place the amount of moisture left in the cloth by this procedure will be both an unknown and an irregular quantity. Again, the cloth may be unevenly dried, due to the varying steam pressure in the cylinders. In addition, the temperature of the room may vary; and this will also cause uneven conditioning. Finally, the speed of the cylinders may vary without it being perceptible to the workman. For these reasons it is better to thoroughly dry the cloth and condition it on a damping machine afterwards than attempt to condition it by underdrying it on the drying machine. The former process gives uniform, and satisfactory results, while the latter process is undependable.

There are, however, specially designed machines which dry and condition in one operation; use of this type of equipment often results in saving of time and labor, and does not present the difficulties encountered in the method outlined above.

During finishing processes the cloth is frequently subjected to heavy pressure from calender rolls, and it is important that thick seams—where the fabric has been sewn end to end should not be present. Not only would the cloth be damaged, but the calender bowls would also be seriously injured. It is necessary, therefore, to remove the seams where great pressure is part of the finishing operations and to substitute a joint which will enable the cloth to pass through the machines without damage. This joint is made by first cutting out the seam and then pasting the ends together. This will form an even, flat, and smooth joint on which the pressure will not act injuriously.

Pasting is performed on a special table, which should be of sufficient width and length to receive the pieces. The ends of the cloth are pasted with starch paste boiled

sufficiently to gelatinize the starch granules and render the starch adhesive. Care must be taken that the pieces are pasted together properly, otherwise they might be joined in such a way that some portions of the cloth would be finished on the wrong side (as in a sateen or twill). In cases where the cloth has to be subjected to a light calendering only, it is not always necessary to paste the ends of the pieces together if they were originally joined by a very fine, well-made seam, as they will pass through the rolls without difficulty.

The object of calendering is to cause a closing together of the threads of the fabric by flattening them so as to fill up the spaces or interstices between them, and to produce a smooth glossy appearance on the fabric. These results are brought about by the condition of moisture in the cloth, together with the heat and pressure applied by the calender. By adjustment of the pressure during the calendering process, diverse, results may be obtained. For instance, in the case of a fabric which has been heavily filled and afterwards conditioned, a light pressure and a low temperature on the calender will have the effect of mellowing the heavy filling, and producing a smooth, dull surface and a leathery feel in the cloth. On the other hand, if the pressure and temperature are high, a bright gloss with a hard, boardy feel will be produced. In many cases, however, this result is not desirable. The intermediate condition may be obtained by having the temperature of the calender roll high, while the pressure is light; and in this case a high gloss and thick leathery feel will be produced.

When a very high gloss is required, it is obtained by means of a friction (or glazing) calender. In using this machine the cloth passes through the calender at a slower speed than that at which the calender cylinder itself is traveling. The fabric, therefore, is subjected to friction as well as to heat and pressure. This friction produces a much higher gloss than can be obtained by means of the ordinary calender.

In many finishes the cloth is calendered before, as well as after stiffening. This is particularly so in the case of dyed and printed fabrics. The objects of double calendering are to remove or straighten out any creases which may be present in the cloth and to prevent the starch from percolating through the cloth and marking the face. In light finishes it is also advantageous to calender before stiffening or filling, since this prevents the cloth from absorbing too much of the starch mixture. A better gloss is also obtained in the second calendering, and without having to resort to heavy pressure. Likewise the finish has a much better appearance than would otherwise be the case, the luster being in the fibers rather than simply on the surface.

For certain finishes, however it is found advantageous to stiffen the cloth before calendering, particularly in those finishes which require the cloth to be very heavily built and filled.

Chasing is a method of calendering which is carried out with the object of producing an imitation beetle finish. It gives a thready and linen-like appearance to the cloth. This process is best carried on by means of a five or six-bowl calender, although for some finishes a combined friction and chasing calender with three bowls is preferred.

Schreiner Calendering

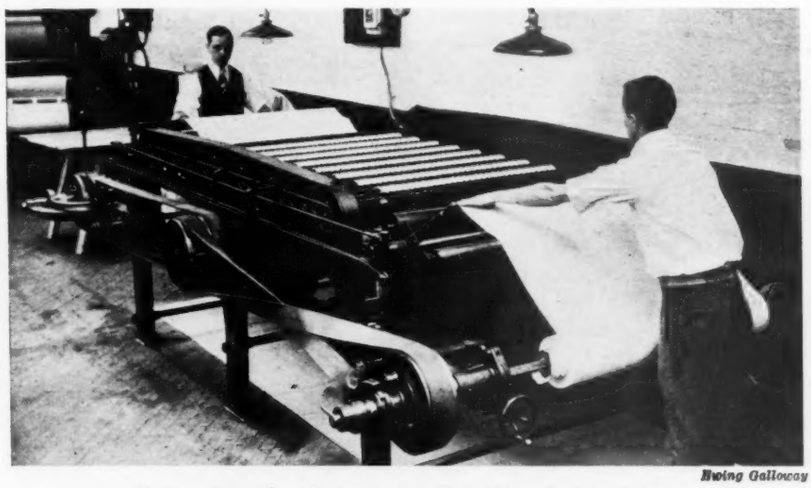
Schreinering has, in recent years, almost completely superseded the hot-press finishes on linings, venetians, zanellas, sateens, etc. A feature of the schreiner finish is the silky feel and appearance produced on the cloth, and on this account it has carried the field against most any other process of mechanical lustering. Schreinering is simply a form of embossing, and the silky luster is produced by the reflection of light from the numerous small ribs which are impressed or embossed on the cloth by the engraved bowl. The main difference between schreiner patterns and ordinary slash-line patterns, is that the former have a larger number of lines or grooves to the inch impressed on the fabric than the latter. Until recent years slash-line patterns were seldom engraved with more than 120 grooves to the inch.

In this country today the schreiner finish is generally produced by means of a bowl which has about 250 lines to the inch engraved upon it. The engraving is cut in such a way that the grooves and ribs run at a slight angle to the warp or filling according to the texture of the cloth. It is found in practice that the best results are obtained (in such fabrics as filling sateens) with an angle of about 20 degrees to the filling, the angle inclining in the direction of the twist in the yarn. Although sateens and twills are the chief classes of fabrics which are schreiner finished, plain-woven goods may be treated to this process to advantage.

In this particular case the engraving should be coarser than for sateens (about 160 lines to the inch) and the grooves should run at an angle of 45 degrees.

It is advisable whenever possible that the various machines through which the cloth passes in the wet state be fitted with expanding rollers. These rollers materially assist in the recovery of the width and leave little to be done by the stretching machines in the finishing operations. The width should be regained as far as possible before the cloth undergoes the stiffening and filling processes, as any stretching afterwards will break down the filling, and this will have to be allowed for by making the cloth

(Continued on page 101)



Ewing Galloway

Button breaking imparts a soft, mellow feel to fabrics which otherwise would be stiff and papery.

What Is Patentable and What Is Not?

*By Charles W. Rivise**

In a previous article, TEXTILE WORLD, Sept. 20, 1930, Mr. Rivise explained the type of inventions for which valid patents can be secured. He now shows that no matter how ingenious a discovery may be—for lack of patentable subject matter—it may fall outside the pale of patent protection; on the other hand, he points out that a simple change or accidental discovery may result in a patentable invention.

MANY inventions and discoveries fall outside of the pale of patent protection for lack of patentable subject matter. In this category may be placed abstract forces of nature, causes, and effects.

Unpatentable Discoveries

In all of the decided cases, the courts have taken great pains to point out the fact that though neither the cause nor its effect is patentable by itself, the means by which the cause is applied to produce the effect is patentable. Likewise, a new property discovered in matter, when practically applied in the making of a new manufacture or composition, may be the basis of a valid patent. In other words, the principle of nature itself is not patentable, but its utilization by means of an art, machine, manufacture, or composition of matter, when properly expressed in one of these forms, is patentable.

On the whole, the policy of the patent law to protect the utilization of the forces and principles of nature rather than the abstract discoveries themselves has reacted beneficially upon industry. This is reflected in the large number of patented inventions consisting either partially or wholly in the utilization of forces or powers of nature, such as chemical reaction, heat, magnetism, electricity, hydraulics, light, pneumatics, etc.

Invention

Having decided the question of patentable subject matter in the affirmative, it is then necessary to determine whether or not inventive ingenuity has been exercised in producing the alleged invention. For, it has never been the object of the law to grant a monopoly for every shadow of a shade of an idea, which would naturally occur to any one working in the art or for every trifling device which could be produced by a skilled mechanic whenever required.

Presence of invention is always determined from the result and never from the mental process of the inventor. It is immaterial how small may be the actual effort involved—how easily, or how quickly the idea may have come to the inventor. It may have been the result of deliberation, conscious or unconscious, or of intuition or of any other exercise of the reasoning faculty. It may even have been the result of a happy thought or accidental discovery.

One court even went so far as to make the following statement: Invention is not always the offspring of genius; more frequently it is the product of plain hard work; not infrequently it arises from accident or carelessness; occasionally it is a happy thought of an ordinary mind; and there have been instances where it is the result of sheer stupidity. It is with the inventive concept, the thing achieved, not with the manner of its achievement or the quality of the mind that gave it birth, that the patent law concerns itself.

Simplicity does not necessarily imply the lack of invention. As a matter of fact and of law, the highest trait of genius is to obtain simplicity. Thus, in the case of Union Special Sewing Machine Co. vs. American Raveller, 119 Fed. Rep. 369, it was held to constitute invention of a high order to provide the movable jaws of a trimming attachment for a sewing machine with serrations to feed the material forward simultaneously with the severing of the fabric and to prevent the cloth from puckering and turning under the jaw. (Patent 309,699 to Dewees.) It appeared that prior-art devices would not work satisfactorily with thick fabrics. As a result, thick fabrics tended to pucker in front of the toggle jaws and were cut in curved lines.

Simplicity must not be confused with obviousness. They are far from being synonymous terms in the patent law. As has already been pointed out, simplicity is not evidence of lack of invention. Obviousness, on the other hand, is such evidence. But it must be strongly emphasized that if the advance in the art, however slight, appears obvious only after it has been made, this is no evidence of the lack of invention. Furthermore, that no matter how obvious the change over the prior art appears to be, a valid patent can be secured if the modification is accompanied by an unobvious or unexpected change in the result produced and provided that the invention is of sufficient importance. For, as has been authoritatively stated by the Supreme Court:

> Knowledge after the event is always easy, and problems once solved present no difficulties, indeed, may be represented as never having had and, expert witnesses may be brought forward to show that the new thing which seemed to have eluded the search of the world was always ready at hand and easy to be seen by a merely skillful attention. But the law has other tests of invention than subtle conjectures of what might have been seen and yet was not.

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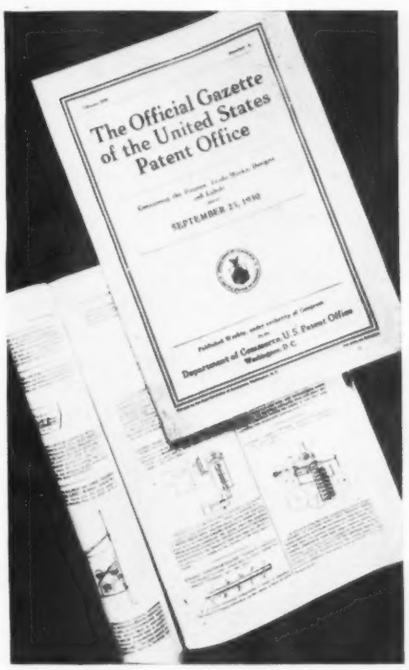
And, as stated by the District of Columbia Court of Appeals:

Many things appear easy after they have been explained and doubtless many a man has wondered why he failed to think of some apparently simple device or improvement that yielded a fortune to the one who did and revolutionized an industry. The simple fact is that the average person sees things as they are, and he who has originality of vision enabling him to visualize defects and the means of overcoming them should receive adequate reward.

Invention sometimes resides in the discovery or appreciation of the difficulty with an existing device or art, even though the solution readily becomes apparent after the difficulty is understood. This was the situation in the case of ex parte Phair 1928 C. D. 76, involving an application which matured into Patent 1,708,519 for a method of laundering textile fabrics. It appeared that Phair had discovered that the holes in laundered fabrics were caused by the corrosive action of sulfur compounds absorbed from the air during the drying. The rather obvious expedient then occurred to him to add a protective agent or neutralizing substance to the rinse water to counteract the effects of the sulfur compounds. This idea had previously been applied to tire fabrics before incorporating them into tires. The Commissioner of Patents on this state of facts decided that Phair was entitled to a patent, stating that this was a case where the mechanical or chemical change over the prior art was the minor part of the invention. Of course it is clear that had Phair stopped at the discovery of the problem and had not completed the inventive act by suggesting the solution, obvious though it was admitted to be, he would not have received the patent. For, as pointed out previously, the discovery of a principle of nature by itself is not patentable.

The courts have found it impossible to determine the presence of invention by applying the test of any general definition to the device under consideration. In one case it is possible to say that there is lacking that intangible something which distinguishes invention from non-invention. The intangible something, however, cannot be segregated and defined so as to aid in the determination of the majority of cases, which lie in between the two extremes. Hence the courts have contented themselves by deciding individual cases on their own merits by means of a process of exclusion. As a result of the many adjudicated cases in which this process has been utilized there has grown up a set of negative rules, which are to be applied in given situations to determine whether certain variations in old devices and processes do or do not arise to the dignity of invention.



Published weekly, The Official Gazette of the United States Patent Office describes in detail all of the patents granted since the previous issue

Mechanical and Chemical Skill

The first of these rules is that it is not invention to produce a device or process which any skillful mechanic or chemist could produce whenever required. Any advance in the arts as results from this skill the public is entitled to avail itself of as a fruit of mechanical growth and advance.

The test is whether an ordinary person skilled in that particular art would spontaneously make the change represented by the invention. If he would do so there is no patentability. A person skilled in the art is a fictitious person supposed to know all that has been done in that field.

An example of changes that have been held to involve nothing more than mechanical skill and hence unpatentable is as follows:

In the case of Scott & Williams, Inc., vs. Aristo Hosiery Co., 7 Fed. Rep. (2nd) 1003, Patent 1,233,714 covering "a seamless stocking having therein at the back of the leg a structural variation of the knit fabric of which it is composed, imitating the narrowing marks occurring in seamed or other narrowed stockings" was held invalid on the ground that it involved merely mechanical skill on the part of the patentee to produce an imitative result.

If, after considering the alleged invention in the light of the prior art, the court is doubtful whether the change involves inventive or merely mechanical skill, it will invoke the commercial success of the new design as evidence of invention. However, if there is no doubt in the mind of the court, commercial success is irrevalent and will not be considered. This is so because the courts utilize commercial success to raise a doubt in favor of invention and patentability and not to raise a doubt when none exists.

Change of Size or Degree

The second rule is that a mere carrying forward of the original thought, a change only in form, proportions or degree, doing the same thing in the same way by substantially the same means, with better results, does not constitute patentable invention.

As examples of unpatentable changes falling within this rule may be mentioned: (1) Increasing the size of a machine or some of its parts; (2) Increasing the strength or rigidity of a mechanical part; (3) Operating a machine at higher pressure; (4) Doing something more thoroughly; (5) Changing portions of ingredients; and (6) Increasing the elasticity of a fabric by knitting more tightly and placing the rubber cords more closely together. Thus in the case of Wallace, 21 Wallace 112, the Supreme Court had this to say:

"Many textile fabrics, especially those of cotton or wool, are constantly improved. Sometimes the improvement is due to the skill of the workman, and sometimes to the perfection of the machinery employed. The results are higher finish, greater beauty of surface and increased commercial value. A patent for the better fabric, would, we apprehend, be unprecedented."

Substitution of Material

The third negative rule is that it does not involve invention to substitute superior for inferior materials in making one or more parts of a thing, unless the substitution involves a new mode of construction, or develops new uses and properties of the article not obvious from

the change, or where superiority of the substituted article it shown to consist not only in greater cheapness and durability, but also in more efficient action.

Among the many illustrations of this rule may be mentioned: (Buckram and coarse cloth instead of fragile gauze for hat box or trunks; Lyons vs. Bishop, 95 Fed. Rep. 154. (2) Elastic cord instead of tape for sweat band; in re Taylor 1913 C. D. 418 and (3) Parchment paper instead of cloth or linen for collars; Collar Co. vs. Van Dusen 23 Wall. 530.

The following examples illustrate the exceptions to the rule: (1) Use of muslin stiffened with shellac for shoe lace tips; Shuter vs. Davis, 16 Fed. Rep. 564, and (2) Substitution of an old and well-known multi-ply interwoven fabric for the materials formerly used in semi-soft collars. Van Heusen Products Co. vs. Earl & Wilson, 300 Fed. Rep. 922. In the latter case the court was evidently persuaded that invention existed by the phenomenal commercial success of the new collar.

Duplication of Parts

The fourth rule is that it does not constitute patentable invention to duplicate one or more parts of a device, for the change produces merely a duplication of the old result.

An exception to this rule is made when the duplication of parts modifies the old result in an entirely unexpected manner or produces a new result.

Omission of Elements

The fifth rule is that it is not invention to omit one or more parts of an existing thing, unless the omission causes a new mode of operation of the parts retained, or results in a substantial simplification of construction or rearrangement of the remaining elements, whereby the same or a better result is obtained by a less number of parts. Obviously, if a man discovers that he can eliminate one or more parts of a machine or process and still get the old result, he is entitled to a patent protection. But, if the omission of the element also eliminates the function of the omitted element and does nothing more, no patentable invention is present. The case of Eck vs. Kuntz, 132 Fed. Rep. 758, involving Patent 592,134 for a knitting machine is in point.

Making Device Portable

The sixth rule is that it does not constitute patentable invention to make an old device portable. The advantage and convenience arising from making a device portable are usually so obvious that their perception and appreciation cannot be held to involve an exercise of the inventive faculty. However, in a very small percentage of cases it happens that the change brings about new and unexpected results. Then it may be patentable.

Substitution of Equivalents

The seventh rule is that no invention is involved in substituting equivalents in an old device or thing. An equivalent is usually defined as an element that performs the same function, in substantially the same way to produce substantially the same result as that produced by the element replaced. Terms and nomenclature do not determine the question; neither does form or shape.

For example, in one case a bolt and a screw were held to be the equivalents, and in another ball bearings and roller bearings were held equivalents. A crank is usually considered equivalent to a cam or an eccentric; a chain and sprocket are equivalent to a shaft and a pair of gears; and a spring and weight are equivalent for pulling down, but not equivalent for absorbing vibrations due to the difference in the manner of producing the result.

Change of Location

The eighth rule is that no invention is involved in changing the relative location of parts of an old device.

As examples of changes of location that were held unpatentable may be mentioned: (1) Changing the angularity of two shafts which are operatively connected by gearing, and (2) Reversal of parts such as placing cutting knife behind instead of in front of a moistener.

If the change in location is not merely arbitrary, but is accomplished by some unexpected or obvious results, the courts will uphold the patent. Thus in the case of Hoyt vs. Horne 145 U. S. 302, it appeared that prior to Hoyt's patent No. 303,374 dated August 12, 1884, rag engines were usually constructed with a vertical midfeather. Hoyt found that by placing the beater roll in one end of the vat and providing a horizontal midfeather extending from the beater roll to the other end of the vat, an unexpected increase in beating action was obtained, in that the fibrous material and liquid were carried from the lower section between the knives and delivered over the top of the beater roll into the upper section. This change was therefore held patentable.

Making an Element Adjustable

The ninth rule is that it is not patentable to make an element adjustable, if no unexpected new result is produced. Thus, in the case of Union Special Sewing Machine Co. vs. American Raveller, 119 Fed. Rep. 367, the court held Patent 324,818 to Clark & Murphy for a trimming attachment invalid, on the ground that it did not involve invention over Patent 266,783 to Dewees. Dewees' trimmer consisted of two blunt-edged toggle jaws which rocked on each other and pinched off the superfluous fabric. In order to make allowance for the wear of the jaws, Dewees made the lower jaw adjustable. Clark & Murphy simply went one step further and made both jaws adjustable.

Making Parts Integral or Separate

The tenth rule is that there is no invention in making two parts integral that had previously been separate and vice versa, unless the new integral part, or the separate parts, perform some new or additional functon that is unobvious from the change. It has been held that an increase in strength is not such an additional function as to create an exception.

In the case of Wirtilla vs. Hall, 235 Fed. Rep. 306, it was held unpatentable to make both the top and bottom of the heddle frame of a loom in two parts, one of which parts was a removable metal rod.

An exception was made in the case of McMichael & Wildman Mfg. Co. vs. Stafford, 105 Fed. Rep. 380, involving Patent 453,290 for an improvement in the horizontal cam disk of a circular rib knitting machine. The patentee made the disk in sections, each one of which could be detached and removed to clean and repair the machine without disturbing the other parts.

Double Use

The eleventh rule is that the application of an old device or process to a similar or analogous subject, with no material change in the manner of applying it, is not patentable even if the new form of result has never before been contemplated.

United States Patent Office

This rule, often referred to as the rule of double use, is tied up with the question of analogous art. A man is expected to know of a solution in his own and analogous arts, but not in remote arts. Hence, it may involve invention of a high degree to take over a device from an entirely unrelated art and apply it to produce a different result, even if no great change is made in construction.

Illustrations of cases in which the adaptations were held to be mere double uses are as follows: (1) Blind-stitching sewing machine and machine for sewing curved wire upon hats. Lewis Blind-Stitching Machine Co. vs. Premium Mfg. Co., 163 Fed. Rep. 950, and (2) Applying process of coating paper, metal, fabric, glass, etc., to shoes, since the operation was merely coating. In re Braselton, 273 Fed. Rep. 759.

A case in which the new adaptation was held to be more than a double or analogous use and hence patentable is as follows: Tanning leather and dyeing fabric. In both the dyeing and tanning processes the material was treated with an acid which was then reduced to oxide by chemical reduction. Tannage Patent Cases, 70 Fed. Rep. 1003, and 93 Fed. Rep. 811.

In many cases, however, it has been held that the necessity of considerable change in the old device to adapt it for its new purpose is evidence of invention.

Combination and Aggregation

The twelfth and last negative rule is that aggregation or lack of combination is not patentable. Restated in non-technical language, the component parts or elements of a device or process must coact with each other in such a manner as to produce a unitary result which is not merely the aggregative effects of the individual elements.

When operations or devices are brought together and united, one or the other of two results must follow. Either each element remains unchanged in function or effect, or each one performs additional functions and produces additional effects due to their action upon each other or their joint action upon the common object. The former union is an aggregation or a mere collocation of elements and is not patentable.

As examples of aggregations may be cited the following cases: (1) Two machines on a single bed plate for performing successive operations on a single piece; and (2) Washing machine and wringer both operated by same motor; Grinnel Washing Machine Co. vs. Johnson Co., 247 U. S. 426.

If several elements are brought together so that additional functions are performed and additional effects are produced, the union is a true patentable combination. In such a combination the final result is unitary and due to the joint coaction of all the elements. It is not, however, necessary that all the elements operate simultaneously so long as every one of them contributes to the unitary result. They may operate successively. Nor is it necessary that all the elements coact or cooperate with each other all the time, as long as they do so part of the time to produce a new and useful result or an old result in an improved and modified manner. In any event the result must be more than that of the separate elements, and the combination of elements in correlation must produce a different force, or result, from the sum of that which is produced by their separate parts.

A new and patentable combination may also be created by rearranging the elements of an old combination. Again, it often happens that the elements themselves are new and patentable. In such case patent protection may be secured on both the combination and on each of the new elements. However, it must be emphasized that if a new element is introduced into the old combination, a patent cannot be secured for the combination unless the new element coacts with the remaining elements in a different manner than did the replaced element to produced a modified or different effect. Improving merely one element of a combination does not ordinarily create a new combination in a patentable sense.

Such was the case in Ex parte McNeil, 1902 C.D. 313, in which it appeared that McNeil had made a substantial improvement in the stitch-forming mechanism used with an old form of trimmer. The commissioner held that McNeil might obtain a patent on his particular form of stitch forming device, but could not get a patent covering the combination of his device with the trimmer, for the elements of the alleged new combination were combined and operated in substantially the same way as in the old combination.

From what has been said in this and the preceding article it may be laid down as a general rule that a new and useful invention or discovery is patentable, if it relates to patentable subject matter and produces an unobvious or unexpected result or an old result in an improved and unobvious manner. If there is any doubt in the mind of the court that invention exists in a particular case, the doubt will usually be resolved in favor of the patentee. This is especially so if he can show that his invention satisfied a long-felt need and solved a problem that existed for years in spite of all that prior workers in the art claimed to have accomplished. It often helps also to show that the teachings of the patent were regarded with skepticism when first disclosed to workers in the art and that after its utility was demonstrated, the invention went into immediate use and achieved great commercial success.

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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On Visiting Other Plants

Editor, Overseers' Round-Table:

IN MY opinion an overseer gains sufficient information from visits to other plants to justify the loss of time. These visits, however, should not be overdone and I would suggest that one a month would be sufficient.

The visits should be arranged in advance with the plant to be visited, for there is nothing more annoying than to have visitors around when you are busy. I don't think any overseer knows it all and couldn't gain valuable information from his fellow overseers. He could also give his fellow overseers some useful tips and it would be a 50-50 proposition.

FRANCIS J. MCNEICE,
Overseer-of-Dyeing.

Editor, Overseers' Round-Table:

THESE ARE "fast moving times" and we all have to take advantage of every opportunity to keep abreast of new machinery and methods.

We visit neighboring plants occasionally and we are always pleased to play host to overseers who are interested enough to exchange ideas. I don't think that the average overseer has anything worth while that he cares to hide.

I am in favor of visiting other plants and exchanging opinions. ROY H. ELAN.

Editor, Overseers' Round-Table:

IN REGARD to the information overseers receive in visiting other plants. This should be done judiciously. It is very seldom that any two plants are working under exactly similar conditions. To a certain extent every man has his own problems to solve and there are many different factors in every problem and all of them have to be taken into consideration.

As an illustration, a shorter draft or more twist, might get us out of a certain trouble. In another plant the same thing might get us into trouble, as there is a certain production required of every machine.

I think the meeting together of all the overseers in a certain section, and discussing different problems, a much better plan. S. S. R.

Editor, Overseers' Round-Table:

It was the writer's privilege, while vacationing in the mountains of Virginia this summer, to go through a plant of the same kind as where I am now employed. As mills of this specific type are scarce as hen's teeth farther down here in Dixie, it was indeed an opportunity. The superintendent remarked that all mills were alike. It may be true that all mills are operated on the same princip'es, yet they may be as different as day and night. The differences may be in machinery, methods, materials, efficiency, etc.

A foreman may pick up ideas and broaden his ability by visiting other plants. Expecting the foreman host to tip you off to any "red hot" ideas is absurd. All that should be expected is that you be shown through the plant and that you pick up as much as possible through observation.

Inspecting other plants during your company's time should be taboo. If it is worth anything at all to the foreman it is worth his own time and pleasure. J. A. WEBB.

Editor, Overseers' Round-Table:

ALTHOUGH I have never had the opportunity of visiting other plants I can't see where anything but good would come of such a system, provided that every man was fully prepared to reveal and not conceal any personal knowledge or working system. But there is another side of the question and that is the human element.

A Company Cafeteria Is

"THE fact that I didn't have very much breakfast this morning may be one of the reasons for my suggesting today's topic," Superintendent Chase settled in his chair and glanced about the overseers, "but, from the serious side, the officers of the company have been considering installing a cafeteria in the plant where any, or all, could have their lunch if they so desired. Do you men think that it would be a wise move?"

"I most certainly do," Pete spoke up, "and the sooner we have a cafeteria the better I'd like it. Some of us bring our lunch now and that means sitting around somewhere in the plant, without any comfort, and spreading crumbs all about. Lunch, under such circumstances, isn't a pleasant affair and a cold lunch is not the best from the health standpoint. Others rush home to lunch. That wouldn't be so bad except for the fact that it usually means running home, gulping the food and then running back, for everyone doesn't live at the mill gates. Still others depend on various outside cafeterias which, as a rule aren't particularly attractive.

"A company cafeteria," Pete continued, "would mean that everyone could have a hot lunch without hurrying. The food would be inexpensive since the company would not expect to make any money and bulk buying would mean low first cost. I believe that health and spirit would be better with a company operated cafeteria."

"Pete has painted such a rosey picture," Bill laughed, "that I can see all of you looking hungry, but there are quite a few flaws in his description. A cafeteria hooked up to feed a large number only once a day is not economical. Commercially a restaurant must serve crowds at least twice a day to make money. Then there is the variation in

Is Discussed

numbers. On cold winter days there will be a great crowd in the company cafeteria. If a nice day comes along everyone gets the wanderlust and goes out somewhere to eat. Being prepared to take care of such variations costs a lot. For these various reasons a company cafeteria cannot serve good meals at low cost and break even. Either the company must run the cafeteria at a loss, which I don't think is sound, or the prices charged will be such that the operatives can do better elsewhere."

"Bill has gone so far into economics that I'll have to point out the social part," Pete rejoined. "Think of the benefit of having a place where all sorts of gatherings could be held. Think of the benefit to those who will still want to bring their own lunch but who can have a hot cup of coffee with it and a pleasant place to eat."

◆

Do *you* think that a company cafeteria is beneficial to the workers and a sound proposition?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

How many of us are there who are prepared to divulge to a competitor, even though he be a friend, information, or a system of operation, which we know does not exist at other plants and which we think puts us in a superior position to produce quantity and quality, thereby endowing our security and prosperity? It is only natural to withhold such knowledge, and further, I believe it is our duty to ourselves and our employers.

Weighing the pros and cons I vote against visiting and say stop at your own place and get along with your own work.

A. COOPER.

Opinion on Night Work

Editor, Overseers' Round-Table:

I AM bitterly opposed to the elimination of night work for two reasons:

1. The unemployment situation certainly would not be helped any. Think of the thousands of employees who would be put out of work and forced to the farm to raise seven and eight cent cotton.

2. It would have a tendency to reduce wages, for the simple reason that mills could employ the discarded night hands at any price.

I firmly believe that such a step would be detrimental to the wage earners.

I would suggest that instead of mills operating 60 hours per week they operate only 48 hours. With a day and night shift this would mean a curtailment of 24 hours per week, which would be sufficient to balance production with demand.

P. A. WYNN,
Overseer of Carding, Mandeville Mills.

Editor, Overseers' Round-Table:

AFTER SEVERAL years of overproduction and the near ruination of the cotton industry by night work, the cotton manufacturers have seen a great light and are going to discontinue this practice. More and more the worsted mills are now adopting night work and, as all mills financially able must meet competition, it will be necessary for all mills desiring to stay in the game to start working nights until, as overproduction increases, profits will be eliminated.

As business has retrograded to a point where few advance orders are placed, mills working nights are producing away beyond orders, and thereby becoming jobbers instead of self-respecting manufacturers.

Is is not time to profit by the experience of the cotton industry, and sleep nights, and then be assured of a profit for day work?

L. B.

Paying Workers by Check Discussed

Editor, Overseers' Round-Table:

PETE HAS the right attitude on payment by check. My opinion is based on experience as we have been using the check system for three years and no complaints are received. Our payroll amounts to approximately $100,000 weekly and that would look mighty good to the present-day bandits.

We pay off three days earlier than previously and make it convenient for the workers to convert their checks into cash at the local bank within three hours after they are received. The cash system is all right where the payroll does not exceed $3,000, but with present day mergers the check system is safer and more economical.

In conclusion I would like to ask Bill a question: Who ever heard of anyone dumb enough to give 10% to get a reputable company's check cashed?

T. A. S.

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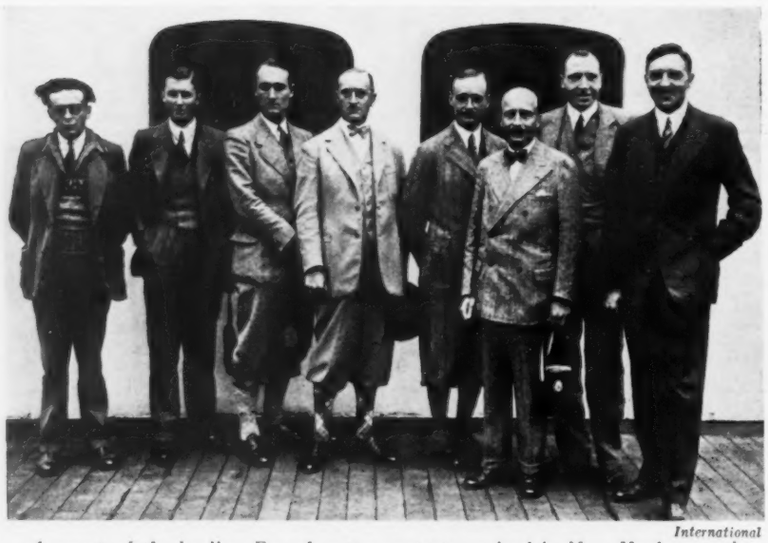
Summary of Discussion on Visiting Other Plants

SENTIMENT was two to one in favor of overseers visiting similar plants and, in turn, playing host to visitors. Those in favor, however, were generally of the opinion that only a moderate number of visits should be allowed, ranging from one a month to one a year. A few contributions said that the overseer should visit only on his own time. The principal point of contention seemed to be the amount of information which could be picked up, those favoring visits stating that the spirit of give and take was current, while those opposing believed that no overseer would allow any information of value to come under the observation of a visitor.

NEWS about MEN



International

A group of the leading French cotton experts arrived in New York recently to start a tour of the United States. Later they will be joined by another group and will visit the cotton centers of New England and the South.

WILLIAM N. CAMPBELL, a member of the firm of Campbell-Ward Co., Boston, wool dealers, has been elected president of the Goodall Worsted Co., Sanford, Me., and WILLIAM H. MARLAND has been elected president of the Sanford (Me.) Mills. In their new positions both executives succeed COL. LOUIS B. GOODALL, who resigned as president, but continues as chairman of the board of the two corporations.

AUSTIN H. CARR, vice-president and treasurer of the Durham (N. C.) Hosiery Mills, has been elected by the directors president, to succeed D. P. CAREY, who has served in that capacity for the last two and a half years. Mr. Carey has accepted the presidency of the Belding Hemingway Co., New York succeeding H. M. Merriman, who will continue as chairman of the board.

A. L. EMERSON, president of the Warrensburg (N. Y.) Woolen Co., Inc., has returned from a sojourn in Europe.

GOV. FRANK G. ALLEN of Massachusetts has appointed the following leaders in the textile and allied industries as members of the Massachusetts State Emergency committee on unemployment: R. PRESTON CLARK, Plymouth (Mass.) Cordage Co.; FRANK P. COX, General Electric Co., Lynn, Mass.; NATHAN DURFEE, vice-president and plant executive, American Printing Co., Fall River, Mass.; FREDERICK C. DUMAINE, Weston, Mass., treasurer Amoskeag Mfg. Co., Manchester, N. H.; EVERETT F. GRAY, Ludlow (Mass.) Mfg. Associates; JAMES D. HUNTER, James Hunter Machine Co., North Adams, Mass.; FRANK MOSSBERG, Mossberg Pressed Steel Corp., Attleboro, Mass.; J. FOSTER SMITH, agent Naumkeag Steam Cotton Co., Salem, Mass.; JOHN F. TINSLEY, vice-president and general manager, Crompton & Knowles Loom Works, Worcester, Mass.; FRANK H. WILLARD, president, Graton & Knight Co., Worcester, Mass.

CARL BENRATH, a director of both American Bemberg Corp. and American Glanzstoff Corp. and active in both J. P. Bemberg A. G. and Vereinigte Glanzstoff-Fabriken A. G., sailed for home last week on the North German Lloyd liner "Europa."

WILLIAM JONES, of William Jones & Co., Ltd., Gloucester, England, carpet manufacturers, and MRS. JONES, who are on a tour of the world, stopped over in Worcester, Mass., last week, to visit relatives.

CHARLES S. KELLEY, JR., of the brokerage firm of Sanford & Kelley, New Bedford, Mass., has left the city for his annual inspection trip of southern textile plants. He accompanies RUSSELL H. LEONARD, treasurer of the Pepperell Mfg. Co., the first stop being scheduled for Danville, Va., at the Dan River Mills. Other stops will be made at the Pepperell plants, where the party will be joined by other Pepperell officials. Mr. Kelley expects to be gone a month.

LAURENCE MAYER, vice-president of Julius Kayser & Co., will leave for Australia on Nov. 3, to inspect the company's hosiery plant in Melbourne.

A. J. L. MORITZ, vice-president and general manager of the American Enka Corp., at Enka, near Asheville, N. C., who has just returned from a six weeks' trip to Europe, visiting the countries of Holland, Germany and Belgium, predicts that there will be a steady improvement in business conditions generally for the next few months.

WENDELL WILLIAMS, secretary of the Hayward Woolen Co., and the Schuster Woolen Co., both of East Douglas, Mass., and CLARE H. DRAPER, vice-president of the Draper Corp., Hopedale, Mass., have been elected trustees for three years of the Milford (Mass.) Savings Bank. Mr. Williams was also elected a vice-president.

ALBERT PALMER, research associate of Crompton & Knowles Loom Works, Worcester, Mass., addressed the seniors and juniors in the textile department of Clemson College on Oct. 20. Mr. Palmer presented an illustrated lecture dealing with the subject of weaving costs as affected by modern weave-room methods and machinery.

G. W. HARDER, treasurer of the High Rock Knitting Co., Philmont, N. Y., has been elected secretary of the Democratic State Committee for the ensuing year.

HARLAN T. PIERPONT, treasurer of the Worcester (Mass.) Silk Mills Corp., and HARRY A. BILLINGS, works manager of the Draper Corp., Hopedale, Mass., have been elected members of the executive committee of Worcester chapter, American Red Cross.

Appointment of H. D. WILEY, as manager of the retail sales division of Cheney Bros. to succeed Ralph Abercrombie, resigned, was announced by FRANK D. CHENEY, general manager of the company. Mr. Wiley joined the Cheney organization several months ago. He was formerly in charge of foreign and domestic silk purchases for Lord & Taylor, New York.

H. J. Y. MICHEL, director of textiles with the Skenandoa Rayon Corp., Utica, N. Y., delivered an illustrated lecture on the new uses of rayon at the convention of the New York State Teachers' Association held last week in that city.

JOHN DORSEY CLARK, who has been a member of the Chicago sales staff of the Chatham Mfg. Co., has just been appointed sales manager for the Mid-Western territory, according to THOMAS J. SHEEHE, general sales manager.

J. A. BECKER, formerly with the American Piece Dye Works, is now associated with J. R. Snyder, in the New York offices of the Pleasant Valley Finishing Co.

EDWARD J. MORAN, for 30 years a member of the office staff of the York mill, of the Canadian Cottons, Ltd., in St. John (N. B.), Can., has been one of the veteran members of the staffs of the Cornwall and York plants, retired in a recent reduction in employees.

JAMES H. COLEMAN, who has been with the Slingsby Mfg. Co., textile manufacturers, of Brantford (Ont.), Can., for the last 20 years, has been appointed manager of the Harris Woolen Mills, Rockwood (Ont.), Can., which will be re-opened shortly. CHARLES G. GARNER, former superintendent of the same firm in Brantford, has been appointed superintendent of the Harris concern.

T. H. BURKHARDT is manager of the Pinehurst Silk Mills, Hemp, N. C., recently acquired by J. Spencer Love, of Burlington, N. C., and associates.

O. B. KIESENWETTER is now general manager of Dominion Woolens & Worsteds, Ltd., with headquarters at Toronto (Ont.), Can.

FRANKLIN STANFIELD, manager of Stanfield's, Ltd., textile manufacturers, Halifax,

Nova Scotia, Can., has been appointed Lieut.-Governor of the Province of Nova Scotia.

SIDNEY C. MCHENRY, former agent of the Otis Co., Ware, Mass., has been elected president and treasurer of Mac Work Clothes, Inc., West Brookfield, Mass., a new corporation.

L. A. WARD, purchasing agent for the two plants of the California Cotton Mills Co., the Sunset and the Alabama Mills, of Selma, Ala., is acting manager also of these plants in the place of J. W. CORLEY, who recently resigned.

WILLIAM W. QUINTON, of Waterville, Me., agent of the Manville Mill, of Manville Jenckes Co., Pawtucket, R. I., for the last year, has been appointed general superintendent of the company's mills in Rhode Island, succeeding WILLIAM A. NORTON, who resigned several weeks ago.

Allen R. Mitchell, Jr., of Allen R. Mitchell & Son, who was elected president of the Philadelphia Textile Manufacturers' Association last week

CHARLES F. ALEXANDER, superintendent for Powdrell & Alexander, Inc., Danielson, Conn., has returned from Los Angeles, Cal., where he went last spring to establish a branch plant for the company in that city.

JOHN W. LONG, who was superintendent of the Hampshire Division of the Hampton Spinning Mills, Clover, S. C., has been promoted to general superintendent of Hampshire and Hawthorne Divisions.

P. A. KISSENGER has taken the position as foreman of the carding department at the D. & K. Fibre Co., Inc., Broadalbin, N. Y.

DEAN THOMAS NELSON, PROF. T. R. HART and PROF. J. T. HILTON, members of the North Carolina State College faculty, headed a delegation of 28 instructors and students of the textile school that attended the ninth Southern Textile Exposition last week. This group travelled by motor bus from Raleigh, N. C., to Greenville, S. C., and return.

E. J. WALDROP, formerly superintendent of carding and spinning at the Banning (Ga.) Cotton Mills, manufacturers of cord tire fabrics, is now overseer of spinning, twisting and winding at the plant of the Caroline Mills, Inc., Carrollton, Ga.

THOMAS HARROWS, overseer at the Linwood (Mass.) Mill of Whitin Bros., Inc., has resigned his position and will leave in November for Bolivia, S. A., to accept another position.

CHARLES PRAY has been appointed plant engineer at the Milltown mill of Canadian Cottons, Ltd.

LOTT OTT, who recently resigned as second hand in carding at the Aiken Mills, Bath, S. C., to accept the position as night overseer of carding at the Langley (S. C.) Mills has assumed his new duties.

FRED ROLLINS, formerly boss weaver of the Henrietta (N. C.) Mills, is at the Phenix Mills, Kings Mountain, N. C.

WILLIAM RIVERS, Rochdale, Mass., has accepted a position as overseer of weaving with the Continental Worsted Co., Inc., Spencer, Mass.

ROBERT SHARPE, who has been in charge of weaving, slashing and quilling at the Renfrew plant of the Brandon Corp., Travelers Rest, S. C., has returned to his duties with the northern plant of this company.

ROBERT A. SANFORD, assistant yard overseer for the Otis Co., Ware, Mass., for the last 14 years, has resigned to accept a position in Brookfield, Mass.

GEORGE F. SLIPP, overseer of several departments in No. 4 mill of the Otis Co. Ware, Mass., has resigned his position.

GEORGE E. GLENN, JR., formerly with the Swift Spinning Mills, Columbus, Ga., is now connected with the Pepperell Mfg. Co., Lindale, Ga.

J. S. YOUNG, formerly master mechanic at the Valley Waste Mills, La Grange, Ga., is now occupying a similar position at the Arnco Mills, Newman, Ga.

Chidnoff

Mrs. Edith N. Hatch, fashion authority, joins the Nashua Mfg. Co. organization.

JULIAN H. MYERS, formerly head of the dyeing and shipping at the Paul Knitting Mills, Pulaski, Va., is now connected with the Gray Hosiery Mills, Bristol, Va.

N. A. GREGG, effective Nov. 1, has tendered his resignation as superintendent of the Stonecutter Mills, at Spindale, N. C.

J. L. BEAVER, formerly of Landis, N. C., is now head of the weaving department of the Micolas Mills, Opp, Ala.

Obituary

Edward Austin Brigham

Edward Austin Brigham, retired textile engineer, died on Oct. 24 at his home, "Brigham Hill Farm," in North Grafton, Mass., where he had lived for the last 50 years. He was born in Boston, Feb. 23, 1846; was educated in the Old Boston Latin School, and choosing the textile business as his profession became a machinery expert. He was for years agent in the United States for Brooks & Doxey of England, builders of cotton machinery. In 1876 he married Annie deWolf Bartlett who died in May, 1927. He leaves two daughters and a sister.

Peirce D. Schenck

Peirce D. Schenck, president of the Duriron Co., Dayton, Ohio, died Oct. 15. His company developed corrosion resisting materials for the textile industry.

Benjamin A. McGaw

Benjamin A. McGaw, for a number of years overseer of the repair department of the Linwood (Mass.) Mill of Whitin Bros., Inc., died at his home in Whitinsville, Mass., on Oct. 23. He was 65 years old, a native of Fall River, Mass., and had lived in Whitinsville for the last 59 years.

Frank C. Rufe

Frank C. Rufe, hosiery mill foreman, died Oct. 24, in Reading, Pa., at the age of 34 years. Mr. Rufe was foreman at the Acorn Hosiery Mills, which is now known as the Infants' Socks, Inc.

Elmer Leroy Shelkley

Elmer Leroy Skelkley, assistant superintendent of the Corticelli Silk Co., Northampton, Mass., died in the Dickinson Hospital, Northampton, of appendicities, Oct. 21.

Charles H. Warnock

Charles H. Warnock, president of the Galt (Ont., Can.) Knitting Co., Limited, died on Oct. 19. He was widely known in textile circles throughout the Dominion. His father founded the Galt Knitting Co. in 1881. The younger Warnock worked up through the business to the position of president which he has held since the death of his father in 1902.

August Kimmel

August Kimmel, founder of the Elmira Felt Co., and the Kimmel Felt Co. of Kitchener, Ont., Can., as well as the Cobourg Felt Co., died at Kitchener recently. He was 66 years old.

NEWS about MILLS

Cotton

Powdrell & Alexander, Inc., drapery and textile manufacturers, with main plant at Danielson, Conn., have opened a branch mill at 726 South Los Angeles St., Los Angeles, Calif., under the management of C. F. Alexander.

Grosvenor-Dale Co., North Grosvenor Dale, Conn., which has been on short time for about a year, is to operate its two plants Saturday mornings.

Bibb Mfg. Co., Columbus, Ga., after operating full-time for several weeks, have returned to a schedule of two days a week.

Calumet Cotton Mills, Hogansville, Ga,. will shortly award contract for the erection of an addition, two stories 81x70 ft., and part of it will be used as a slasher room.

Hartwell Mills, Toccoa, Ga., will operate on both day and night shifts, after installation of new machinery, it is said.

Boston, Mass. An involuntary bankruptcy petition was filed in Federal Court here against the **Old Colony Thread Co., Inc.,** of 794 North Main St., Fall River, by three Fall River creditors who allege the concern is insolvent.

Naumkeag Steam Cotton Co., Salem, Mass. Steady employment throughout the winter for the 1,400 employees at the plant is indicated by the present improvement in the sheeting industry, as announced by E. N. Hood, treasurer.

New York Mills (N. Y.) Corp. has arrived at an agreement with the village trustees to sell its assembly hall building for $15,000 to be used for municipal purposes.

Utica Steam & Mohawk Valley Cotton Mills, Utica, N. Y., have begun work on an overtime basis, providing employment day and night for a large force of employees.

Balfour (N. C.) Mills are operating on a full-time schedule, according to an announcement made by Capt. E. A. Smyth of Flat Rock, N. C., president of the company. This plant manufactures print cloths, operating 20,000 spindles and has a battery of 468 looms.

Eagle Yarn Mills, Inc., Belmont, N. C., are operating on a three-day and three-night weekly schedule.

Ruby Cotton Mills, Inc., Gastonia, N. C., manufacturers of combed hosiery and underwear yarns, are now operating on a full-time schedule.

Charles Mill Co., Red Springs, N. C., is working overtime to fill orders for silk and rayon dress goods and shirtings.

Ninety Six (S. C.) Cotton Mill, which has been running on a half-time schedule since last spring, began operating on full-time several days ago.

Spartan Mills, Spartanburg, S. C., recently purchased 17,000 spindles of long draft spinning machinery from Saco Lowell Shops to replace a similar number of existing spindles.

Gibson Mill of **Canadian Cottons, Ltd.,** Marysville (N. B.) Can., which has been operating three days a week, are now operating four days a week and there is a prospect of going on full-time about the first of December. The plant produces flannelette and coarse shirting.

Cornwall & York Cotton Mills Co., Ltd., St. John (N. B.) Can., which has been operating three days a week for the last year, has increased operations to four days a week. There has been no increase in the number of employees.

Wabasso Cotton Co., Ltd., Three Rivers (Que.) Can., has advanced production at its local mill to about 65% of capacity, and has added to the working force. The increased schedule will be continued for an indefinite period.

Wool

American Felt Co., City Mills, Mass., resumed operations at its branch plant on Oct. 20, after being shut down for several months. Simultaneously with the opening, notices were posted of a 10% wage reduction. The plant at Franklin, Mass., has made a 10% wage reduction also. While there had been no shutdown at the plant this year, the working hours were curtailed at times.

Perryville Woolen Mills, Inc., Dudley, Mass., were sold at public auction for unpaid taxes by the town on Oct. 25 to Luman H. Tiffany, Webster, Mass., for $2,368.76, with the understanding that the former owners have the privilege of redeeming the property within two years. The sale included all land and buildings, but not the machinery. Mr. Tiffany would not say whether he would allow the mills, which have been operating on a part time schedule, to continue operations. While the mills are valued at about $100,000 the taxes due to the town are $2,087.45 for two years.

Thayer Woolen Co., North Oxford, Mass., is operating on a two-day a week schedule.

E. G. Carlton & Sons, Rochdale, Mass., producers of white flannels, have resumed operations after the annual shut down of several weeks.

Continental Worsted Co., Inc., Spencer, Mass., started up operations in the former Bigwood plant on Oct. 27, on worsted goods. The mill, which had been idle for several months, was completely renovated by the new owner.

*Coe Woolen Co., Worcester, Mass., is practically ready to start business but will not begin operations until conditions of the market warrant, according to Robert H. Coe, president.

M. J. Whittall Associates, Ltd., Worcester, Mass., have awarded the contract to the Southbridge (Mass.) Roofing Co., to reroof the buildings at their plant.

Bigelow-Sanford Carpet Co., Amsterdam, N. Y., has increased operations by enlarging its force.

Pendleton (Ore.) Woolen Mills have installed equipment for the manufacture of a cloth produced from the wool of Angora rabbits.

Carleton Place (Ont.) Can. Geo. H. Hirst & Co., Ltd., woolen goods manufacturers of Batley and Dewsbury, Yorkshire, Eng., have purchased the Hawthorne Woolen Mills property located here. Hawthorne Mills, which have been closed since 1928, were owned by the Canadian Bank of Commerce. The new owners are purchasing six sets of 60 in. cards, and additional looms to bring weaving capacity to 77 looms. Operations will begin as soon as this equipment arrives from England. George E. Peterson & Co., 1449 St. Alexander St., Montreal, represent the company in Canada.

Renfrew (Ont., Can.) Woolen Mills, the president of which is M. J. O'Brien, will reopen in a few days after having been closed down for the last four years, according to official announcement. J. J. Southern, formerly manager of Dominion Woolens & Worsteds, Ltd., Peterboro, Ont., will manage the enterprise.

Knit

Wayne Knitting Mills, Inc., Fort Wayne, Ind., have laid off 22 knitters, in addition to the 46 recently dropped. Knitters operating 39 gauge machines will be doubled up.

***American Textiles, Inc.,** Bay City, Mich., are said to be considering removal of local mill to branch plant at Mount Vernon, Ill. The proposed addition to local mill is to be one-story, 84x100 ft., brick and concrete.

Root Mfg. Co., Cohoes, N. Y., woolen and merino flat and ribbed underwear, has increased operations and is now running near capacity.

Worthy Knitting Mills, Inc., Rome, N. Y., have filed notice of company dissolution under state laws.

Anchor Knitting Mills of **Robert Ablett & Co., Inc.,** Whitesboro, N. Y., have enlarged their force because of increased demand.

Byrum Hosiery Mills, High Point, N. C., have been issued a charter by the

*Indicates previous mention of project.

Secretary of State to carry on a general manufacturing business. The authorized capital stock is $125,000, with $4,000 subscribed by G. C. Kester, O. F. Kester, J. E. Kester and A. E. Byrum, of High Point.

P. H. Hanes Knitting Co., Winston-Salem, N. C., has placed contract with the H. & B. American Machine Co. for high draft spinning on the present frames.

R. T. Betoff Knitting Mills, Philadelphia, Pa. Leroy L. Vennell has been appointed temporary receiver for this company in bond of $10,000.

Fairplay Knitting Mills, 3747 Ridge St., Philadelphia, Pa., have leased second floor of building at Lehigh Ave. and Howard St., totaling over 5,000 sq.ft., floor space, and will occupy for a new knitting mill.

Debonair Hosiery Mills, Cleveland, Tenn., are operating at capacity on a day and night schedule, the product being sold up to Jan. 1.

Jantzen Knitting Mills will begin operations in their London, Eng., plant on Nov. 1. For the first year production will be reserved exclusively for England. Stockholders are to meet Nov. 12 to vote on increasing the authorized common stock from 100,000 to 300,000 shares and to approve action of the directors in declaring a 100% common stock dividend.

Silk

Holland Mfg. Co., Willimantic, Conn., has inaugurated a five-day-a-week schedule of 45 hours, instead of 35 hours as adopted a few months ago.

Red Mill Silk Mills, Inc., Paterson, N. J., recently formed with a capital of $125,000, to operate a local broad silk mill, will be represented by Harris J. Westerhoff, 5 Colt St., Paterson, an attorney. John W. Rea is the principal incorporator.

Standard Weaving Corp., Paterson, N. J., recently organized with a capital of $125,000, to operate a local mill, will be represented by Herman D. Edelson, 5 Colt St., Paterson, an attorney. The principal incorporators are Samuel Bloom and Leonard Ginsburg, both of Paterson.

Tigler Silk Co., Paterson, N. J., recently organized with a capital of $100,000, to operate a local broad silk mill, will be represented by Herman H. Moskowitz, 146 Washington St., Paterson, an attorney. Isadore Moskowitz is one of the incorporators.

Champlain Silk Mills, Whitehall, N. Y., have orders booked which will necessitate capacity operations until spring at least.

***Stehlisilks Corp.,** High Point, N. C., has placed a night shift in service at its local mill, following production on a full day-time capacity schedule, and will maintain the new basis until Jan. 1, if not longer, with maximum working quota in all departments.

Penn State Silk Mills, Allentown, Pa. John G. Diefenderfer has been appointed referee in bankruptcy for this company, which was recently placed in receivership through an involuntary petition. John H. J. Reinhard and Arthur Brawer have been acting as receivers.

Emaus (Pa.) Throwing Mills, Inc., chartered under State laws with a capital of $10,000, will take over and succeed to the company of same name with local mill on North St. The incorporators of the new company are Robert S. and H. Walter Stonemack. The first noted has been elected treasurer.

Rosedale Silk Co., Wyoming, Pa. New interests have purchased the mill of this company, which has been closed down for some time past, and will take possession at once. It is planned to remodel and improve the mill, and resume production at an early date with a working force of about 200 persons.

Cumberland Silk Mills, Rockwood, Tenn., have received five carloads of machines of the most modern type which are now being installed in the new plant.

Bruck Silk Mills, Ltd., Cowansville (Que.) Can., according to I. I. Bruck, president, will be placed on full-time operations as from Nov. 1. At present operations are running about 70%.

Canadian Silk Products, Ltd., Sherbrooke (Que.) Can., are having plans prepared and will call for tenders within a month for the erection of addition to silk manufacturing plant. A new boiler house will be erected.

Western Canadian Silks, Ltd., which are incorporated under Dominion charter, are now seeking to establish a silk piece goods plant at Port Moody, adjacent to Vancouver (B. C.) Can. English capital is understood to be joined with Canadian and Chinese capital in financing the project. Stuart S. Tufts, Vancouver, is looking after the organization of the firm, while Stuart Henderson is also prominently associated with endeavors to get the company on a production basis.

Rayon

Industrial Rayon Corp., Cleveland, Ohio, has secured a permit for the construction of a new stack to carry off fumes at its local mill on West 98th St., costing $47,000, and for which general contract recently was let to the Rust Engineering Co., Koppers Bldg., Pittsburgh, Pa.

***American Glanzstoff Corp.,** Elizabethton, Tenn., new addition should be completed by the end of the year, it is reported.

Courtaulds (Canada) Ltd., Cornwall (Ont.) Can., have awarded bulk contract to Foundation Co. of Canada, Ltd., Montreal, for erection of addition to the silk manufacturing plant, excavations for which are now under way. The addition will be 150x450 ft. and will be the first of several new units to follow. Following new buildings will be erected—boiler plant, addition to water softening plant, addition to churning and mixing building, office building and new sewer system.

***Canadian Celanese, Ltd.,** Drummondville, (Que.) Can., has had work commenced on plant extension which will involve the expenditure of $2,000,000 and give employment to an additional 2,000 persons.

Finishing

Danvers Bleachery & Dye Works, Peabody, Mass., have taken on 200 extra hands, making a total of 800, to fill large orders of bed linen. The new schedule is expected to continue throughout the winter.

O.K. Piece Dye Works, McBride Ave., Paterson, N. J., have awarded general contract to I. Greenblatt, 149 Van Buren St., Passaic, N. J., for a one-story addition to dye house on Reservoir Ave., 34x127 ft., to cost about $14,000. Joseph DeRose, 119 Ellison St., Paterson, is architect.

***Associated Dyeing & Printing Co.,** Paterson, N. J., is being organized under the direction of a creditors' committee of the **Associated Dyeing & Printing Corp.,** recently placed in receivership, with local mill on Sixth Ave. Arrangements have been made for the purchase of the property by the new organization for a consideration of $1,000,000, approved by the Federal Court at Newark, N. J. John Maher, Midland Park, N. J., and Theodore Pearson, New York, are at the head of the creditors' committee. It is proposed to operate the mill under the new ownership at an early date.

Sayles Finishing Plants, Inc., Phillipsdale, R. I., have taken bids on general contract for a four-story addition to dye works division, 75x300 ft., to cost over $250,000, with machinery. It is proposed to make award for erection at an early date. Lockwood Greene Engineers, Inc., Boston, Mass., are architects and engineers.

Cobourg (Ont.) Can. Dyeing Co., Ltd., is erecting an addition to the dye house and another unit is to be added to the finishing room.

Miscellaneous

Peter Montenaro & Co., Amsterdam, N. Y., are again operating their garnetting business in the old Morris Knitting Mills at capacity, following repairs necessitated by a recent fire.

Laughlin Textile Mills, Waterford, N. Y., tapes, braids and narrow fabrics, are maintaining full-time schedules with a normal force.

Hall Yarn & Waste Mfg. Co., Inc., Manayunk, Philadelphia, Pa. Walter C. Douglas, Jr., has been appointed referee in bankruptcy for this company.

Granite Cordage Co., Granite Falls, N. C., one of the Shuford group of mills, has returned to its 60-hour schedule of day work. The mill does not operate at night.

Schlichter Jute Cordage Co., Philadelphia, Pa., is planning rebuilding of portion of its No. 1 shop at Butler St. and Trenton Ave., recently damaged by fire with loss reported at close to $50,000, including raw materials and finished products.

*Indicates previous mention of project.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Uneven Pebble and Edge Loops in Silk Crepe

Technical Editor:

We are sending you one piece of pure-dye pink crepe with the following markings on the wrapper: Piece No. 4607, quality No. 600, color pink 06, yards 66⅝, shrinkage ¾ yard. The following are the sewed-in marks on the actual cloth: 1,000—6074—5. The raw yardage before this piece went to the dyer was 67⅜ yards.

The construction of this cloth is as follows:

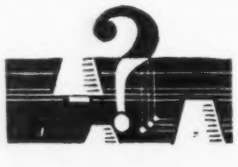
Warp: *14,750 ends, 20/22-denier grand XX, yellow Japan, three ends in one heddle; 58-dent reed, 6 ends per dent. Width of warp in the reed, including double ends in the two edges, about 42 in.*

Filling: *72 picks of four-thread, 13/15-denier double-extra, white Japan crepe, 60/65 turns per inch.*

This piece of cloth shows marked variations in its pebble. Streaks of light and heavy pebble run off and on throughout its entire length. This cloth was woven at 72 picks per inch; and invariably, wherever the heavy pebble appears, the pick count runs from 74 to 79 picks per inch, and out of proportion to its shrinkage.

Is it likely that the warp beam was stuck and did not let off the warp evenly, thereby producing more pickage —in other words, doing the reverse of a slipping warp beam, which produces the so-called "rope marks" and generally causes less pickage? Or what may be the actual cause of the uneven pebble in this cloth? You are at liberty to cut, tear, and dissect any part of this piece, and make any test you wish. (7335)

The sample submitted shows but a few spots where the number of picks per inch runs over the desired count. These few spots are starting-up marks and set marks which are slightly tight and count as high as 80 picks per inch. There is no question that the warp has an even let-off and that no trouble is encountered from a sticking beam or from the fault of any other tension devices which would have caused the so-called "barre" effect.



The cause of the uneven pebbled appearance is uneven filling stock. The spacing of the filling is fairly even, but the filling itself runs heavy and light. Observe the cloth doubled before the light and you can pick out the spots of filling which are uneven. Dissect any of these spaces and one twist will be found heavier than the opposite twist. In some of the spaces, both twists will be found heavy, resulting in a different pebbled appearance after finishing. When two quills of uneven filling, one of left twist and the other of right twist, are woven, it sometimes happens that the heavy portions will come together in the same spot in the fabric and the light portions will do likewise. This will cause unevenness in the cloth, and the pebble will be heavy or light, according to the size of the filling thread.

Another cause of uneven pebble is the use of different filling lots containing different moisture contents. If the filling is used as it comes from the throwster and is still wet, the tension will stretch it with serious results. It is advisable to keep at least a week's supply on hand at all times; and, as the filling comes in, remove it from the cases and place it in dry storage. If the oldest lot is used first, the filling will be uniform in moisture content when quilling.

The edge of the sample shows either wiry filling or poor fixing. This is not the cause, however, of the uneven pebble, which shows throughout the piece even where the edge is perfect. You will notice that the small twisted loops shown on the plain side of the loom, but are on every other double pick. This is the result of the one twist being wiry, the box side containing the shuttle which holds this twist being at fault, or the shuttle itself being imperfect. The shuttle could cause the loop by rebounding slightly. Perhaps the binder tension is weak. It might be that the shuttle is worn down slightly, or the tension in the shuttle is weak. If wiry filling is the cause, the twist is not set.

◆

Defective Circular Stockings

Technical Editor:

We are sending you three stockings. On examination you will find that the dyed pair has longitudinal lines and that the hose in the gray state has a greasy streak across the ankle, which shows after finishing. These hose are knit on 360-needle, 3½-in.-head, circular machines. Will you kindly inform us as to what these defects are due and how they are remedied? (7330)

Examination of the dyed samples shows that the series of longitudinal lines seem to come where the long- and short-butt needles change. This leads us to the opinion that there is a slight difference in the long- and short-butt needles. As the fabric from the short-butt needles seems looser than that from the long-butt needles, it seems likely that the short-butt needles are slightly shorter than the long-butt needles from the upper edge of the butt to the hook.

Sinkers might be slightly different in height and give this trouble, but it seems less likely. We do not think worn cams would give this particular trouble. The defect has the appearance commonly known as "needle streaks."

The undyed sample is stained at the ankle by the long-butt needles, which are out of action during the heel knitting. As these needles are much higher than normal at this time, it often happens that oil is taken from the shank of the needle by the yarns. The needles will have some dirt with the oil

and this stains the yarn. If the trouble is only oil stains, using a stainless oil will probably eliminate most of it.

Another feature is the possible stitch change. As the foot stitch is regulated by a different cam than the ankle stitch, it is possible that there may be a change in the texture of the fabric.

In one of the dyed samples we find 45 courses per inch in the leg, and only 41 courses per inch in the foot. Of course this effect cannot be removed after knitting.

◆

Making Nubs Round and Hard

Technical Editor:

We are trying to make nubs out of worsted noils, and are having trouble in making them hard. We should like to know what to put on nubs to make them hard. We have made very small nubs and have put them in a stretcher drum used in the card room for putting on card clothing—having spikes with paddles to shake them. We run the drum by power at about 70 r.p.m. We have put soap and oil on the nubs and dried them, but they are not hard enough. We think that the stock is not quite right. We are sending a small sample of ours and the ones we bought. (7354)

The difficulty seems to lie in your not making the nubs properly on the card, before attempting to harden them in fulling. Suitable treatment in this process is necessary to obtain nubs that are round and firm. The card should be set very open so that the stock will roll through. The barrel or drum should be constructed with a pronged shaft running through the center. This shaft should be constructed to run in an opposite direction to the barrel. Dampen the nubs with a light solution of soft soap, about 6 quarts of water to 1 pint of soap; sprinkle boiling hot on the nubs; fill the barrel about half full; and run about 20 or 30 min. Be careful not to have the nubs too wet; they should be merely moist.

◆

Sizing Punched Felt

Technical Editor:

We are mailing you a sample of shoe felt which we have been endeavoring to make. We shall appreciate any information you may be able to give us regarding this stock. The sample is partly cow hair and partly jute. After carding into batts, this is punched onto a hessian cloth to hold the felt together. This operation is repeated as often as necessary to make the required thickness. It is performed on a Blamar loom.

The sample, however, has been sized; and this part of the process is somewhat puzzling to us. The size is not very well penetrated into the stock and this leads us to believe that this process consists of back-filling with starch and other suitable ingredients. This would, however, make it expensive to dry the fabric; and we think perhaps you can advise us if there is any other method by which the desired results may be obtained. Our dryer consists of 14 cylinders of 24-in. diameter, and we have had to put the felts over the dryer sixteen times to thoroughly dry the stock. (7349)

The sample is not what is generally understood by the trade as shoe felt. This type of felt is usually called punched felt.

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

The question of sizing to increase the stiffness, yet not to increase the time that it takes to dry the fabric, brings to our mind two factors which would alter the procedure under certain conditions.

If it is a question of stiffness only, and you do not want to spend much time drying the goods—especially where there is only one set of can dryers available—they could be sized with shellac. The shellac could be dissolved in alcohol and padded into the goods or sprayed on them. The alcohol would evaporate quickly, and the process would not entail much drying on the cans. This method would not add much weight to the goods, but we do not know whether or not that is essential.

Where both weight and stiffness are wanted, it is necessary to use a water solution; and in that case, the goods must be dried. If a can dryer is all that is available, it must be used. A formula composed of 25 lb. glycerin, 45 lb. magnesium chloride, 8 lb. vegetable glue, and enough water to make 100 gal. can be used. The vegetable glue is mixed with a small amount of water and pasted. More water is then added until the glue is smooth and free from lumps. Then the other ingredients are added.

This solution is applied to the goods by means of a padding machine with a roll as wide as the felt being treated. The felt is fed into the solution, up through the squeeze rolls, folded onto a truck, and dried. This formula stiffens and weights the goods. We have been able to take a set of pieces weighing 313 lb., size them with this solution, and raise the weight to 375 lb. In other words, we add 62 lb. of weight while stiffening them.

◆

Resisting Silk for Picot Tops

Technical Editor:

We are dyeing indanthrene on silk skein yarn and then resisting it for picot tops in hosiery with the tannic acid, tartar, and tin method. We do not seem to be as successful in the resisting as are some of our competitors. We are wondering whether or not you can advise us the best method of resisting skein silk dyed with indanthrene. (7352)

The dyers who resist the silk for what is probably the best-known brand of hosiery having a resist stripe operate as follows: The silk is first dyed with a vat dye corresponding to the shade required, but the dyeing is purposely made as bright as possible, since the ensuing processes are sure to dull it considerably. Naturally, yellow and gold shades show the change less than bluish reds and violets. The tannic acid used must be of a good quality and as

nearly stainless as possible; at least 25% of the weight of the silk will be required. The treatment should be started at 170° F., and the silk worked in the cooling bath at intervals for several hours, until it has taken up as much tannin as possible. The tannin bath is sharpened with hydrochloride acid. We admit that the use of a strong mineral acid on silk at so high a temperature is a risky procedure, but all silk dyers employ it and look with disfavor on the milder organic acids. After the tannin treatment, a fixing bath of tin crystals follows. The tin crystals must be fresh and must dissolve to a clear solution, although a small amount of acid may sometimes be necessary to clear up the solution. The tin-tannin combination has a natural yellowish color, and will affect the original dyed shade accordingly. In order to make sure that the resisted silk will not alter further when the made-up hosiery is boiled off, the lot is given a boiling soap bath for one-half hour. This soaping will further develop a yellowish color, but there will be no further change when the hosiery is boiled off. The original dyeing must make a liberal allowance for all this, which is easily possible with some shades, but rather difficult with others. There is a tendency to cut the full process short when the shade will suffer, but while the shade is a better match, the resist will be less effective. There are, so far as we know, no secret processes or methods different from the regular procedure.

◆

Sizes of Various Silks; Making Glue Insoluble on Rayon

Technical Editor:

Will you advise us whether there are any China silks which have as small a filament as Japanese silks? We have tried the China Tsatlee, but because the filament is so much larger than Japanese it is unsatisfactory. Also can you suggest a method of treating rayon that will make glues adhere to it? (7342)

An abstract from a report published by the Japanese Imperial Sericultural Experimental Station shows the following variations in the denier size of different classes of cocoons:

	Finest	Medium	Coarsest
Italian high-grade yellow	2.29	2.90	3.24
Italian medium-grade yellow	2.22	3.00	3.59
French high-grade white	2.50	3.07	3.97
French medium-grade white	2.17	2.92	3.84
Shanghai high-grade white	1.57	1.97	2.01
Shanghai medium-grade yellow	1.60	2.09	2.33
Canton high-grade white	1.34	1.67	1.74
Canton medium-grade white	1.52	1.84	2.11
Japanese high-grade floating system	2.37	3.13	3.38
Japanese high-grade sinking system	2.11	2.76	3.36
Japanese medium-grade A white	2.19	2.41	3.12
Japanese medium-grade B white	1.97	2.50	3.31

We have no reliable information on the size of the China Tsatlee cocoon filaments, but believe that they are coarser than any of the cocoons listed above.

The question relative to glues adhering to rayon is not clear. Ordinary types of rayon absorb water solutions of glue very readily, and yarns so treated have a film of glue left on and in them upon subsequent drying. Even acetate yarns absorb glue from strong solutions at temperatures up to 170° F. This glue film is later easily removed by washing in warm or hot water. If the question relates to making such a dried glue film insoluble in water, it may be possible to obtain the desired results by adding a trace of chromic acid or potassium bichromate to the glue solution before applying it to the yarn. After drying, an exposure to daylight may be required. Somewhat similar results may be obtained by adding the proper quantity of formaldehyde solution to the glue solution just before applying it to the rayon.

◆

Spots on Full-Fashioned Hosiery

Technical Editor:

We are troubled at times with batches showing from about 5% to 7% of stockings marked in the cotton welts, as shown in the three stockings enclosed. Our own dyeings are always of a purple character as in the two light shades. The dark shade was dyed by a custom dyer of good repute, and this shows similar marks, only of a different cast, probably owing to a different combination of dyes being used.

These marks show up periodically; sometimes we can go a few weeks and not see any, then they will crop up again. We are at a loss to account for their appearance or disappearance. If you have heard of any similar trouble, or can give us any cause or remedy, it will be much appreciated. All dyeings were made by degumming and dyeing in the same bath. (7350)

We have received and examined the three stockings associated with this inquiry. While the spot on the darker shade is similar in character to the spots on the lighter shades, we believe this spot to be of entirely different origin than the purple spots on the lighter shades. Apparently the spots on the dark shade are crock spots caused by giving the goods insufficient washing and allowing them to stand around for some time, either in the dyeing machine or on a truck, before extracting. We think that more careful washing and handling of this particular shade will eliminate the trouble entirely.

The purple spots on the lighter shades are probably color reductions due to the goods having come in contact with brass or bronze, or with some chemically-treated canvas basket or truck which has been waterproofed. The most probable cause of the trouble is the hydro-extractor. If the basket is made of copper and is not tin plated, trouble of the nature of the purple spots will develop with many direct dyes. We suggest first checking up on the extractor basket; and if exposed copper areas are found, we advise lining the basket with thin cotton sheeting for each operation of extracting. Any light-weight cotton cloth will be suitable for the purpose and ordinary cotton salt bags may be employed, the idea being to place the cloth in the basket in such a manner as to keep goods from coming in direct contact with the metal. If no suspicion is aroused by the hydro-extractor, we should look for exposed bronze or brass parts in the shape of hinges, rivets, bolts, screws, etc., which may be associated with the dyeing machine and trucks for handling goods. We believe that, in any event, the purple spots are temporary color reductions and will probably develop back into the true tone by a few hours exposure to light and air. We are quite sure that a careful follow-up of these suggestions will correct the trouble.

It is possible that you are using cotton dyes not best suited for the purpose of dyeing and degumming in the same bath, but not knowing the dyestuffs employed, we are unable to give any advice on this point. If you care to supply us with your dyeing formula, we shall be glad to give you our opinion concerning the dyestuffs used.

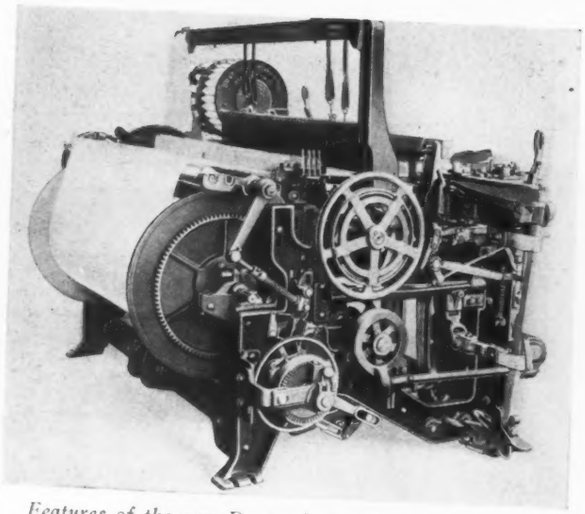
New Machinery & Processes

Model X Automatic Loom

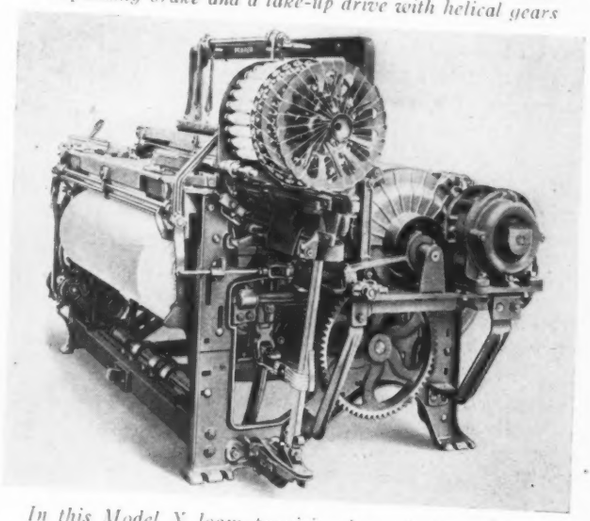
A NEW automatic loom, designated as Model X, and incorporating a number of important improvements, has been announced by Draper Corp., Hopedale, Mass. For several years it has been the policy of this company to develop loom attachments or improvements which could be applied to existing models. In this way the mill could apply to the looms it had, any of the devices brought out from year to year, and thus at any time could bring its old looms up to date at a minimum cost. More recently it became evident that many of the improvements upon which the company was working could not be used to the best advantage in this manner; and it was decided, therefore, to bring out a new model especially designed to embody these innovations.

Among the advantages claimed for the loom is the ability to weave full 41-in. goods on a 40-in. loom. It is possible also to use larger rolls of cloth, larger yarn beams, and larger shuttles than could be employed with previous models. The new loom has been designed to run at a high speed, and it is stated that two mill installations for test are running successfully at 190 and 200 picks per minute.

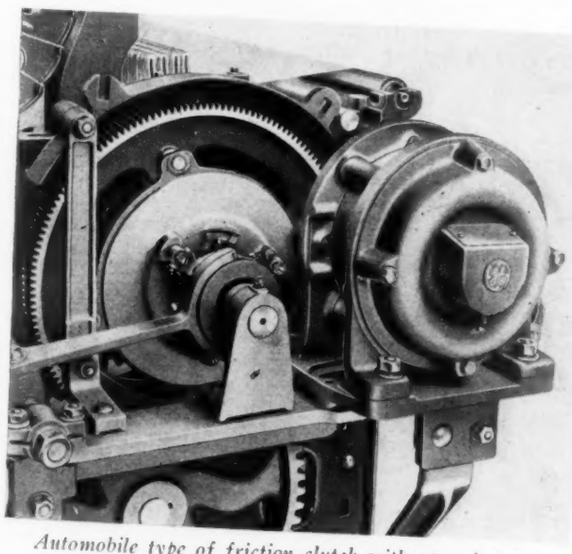
Structural features of the Model X include an improved wear-resisting rocker shaft that can be quickly and economically repaired, a durable pick shaft which is easy to take off and put back, and new frogs designed to give an easy stop and to eliminate sword breakage. Other features are an improved bang-off; automobile type of quick-acting, internal-expanding brake; new friction clutch without end thrust; and take-up drive with helical gears. The loom has been constructed with a stronger, sturdier frame than were the older models, and has been provided with anti-friction bearings, Alemite greasing, and an improved oiling system.



Features of the new Draper loom include an internal-expanding brake and a take-up drive with helical gears



In this Model X loom provision is made for a large roll of cloth

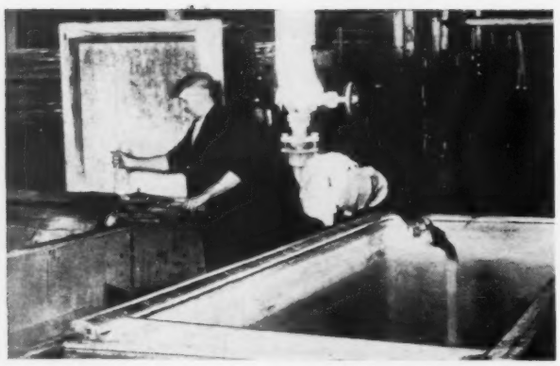


Automobile type of friction clutch without end thrust is employed in new automatic loom

Transite for Lining Bleaching Tanks

USE of Transite for lining bleaching tanks is announced in a performance record issued by Johns-Manville Corp., 292 Madison Ave., New York. According to this report, which was prepared in collaboration with and approved by Charles Stuart, chief engineer, Standard Silk Dyeing Co., Paterson, N. J., it has been found that bleaching tanks lined with Transite have several advantages over unlined equipment. Among the most important of these advantages are the savings effected in repair and replacement costs and the elimination of damage to the fabric by splinters and rust.

The report states that at the Standard Silk Dyeing Co. considerable difficulty was experienced in maintaining the wood bleaching tanks used in bleaching raw silk. Peroxide of hydrogen employed in the bleaching process



Bleaching tanks lined with Transite at Standard Silk Dyeing Co., Paterson, N. J.

caused the tanks to deteriorate rapidly. It ate through the wood to the screws and blots, and then there was danger of rust damaging the silk. Various means of solving the problem were considered. Finally a small sheet of Transite was suspended in the bleaching solution, and after a number of weeks, when it was found to be just as good as when put in, the management decided to line an entire tank with this material. The tank lined was about ready to be scrapped.

The lining held up well under the action of the bleaching solution. It saved the scrapping of a wood tank only six months old. As a result of the performance of the Transite in the first tank, another tank was lined with it, and a third tank, soon to be installed, will also be lined with Transite.

Sheets of Transite 36x48 in. and $\frac{1}{2}$ in. thick were employed in lining the first tank, twelve sheets of this size being used. The Transite was fastened with wood screws, the heads of which were countersunk. A cement, consisting of ordinary portland cement and water, was used to make the joints on the sides, ends, and bottom water-tight, and to fill the holes left by the countersunk screws. In no way does the Transite lining in the tanks harm the silk. It does not wear off, but actually takes on a thin coating from the bleaching bath.

Delustering Compound

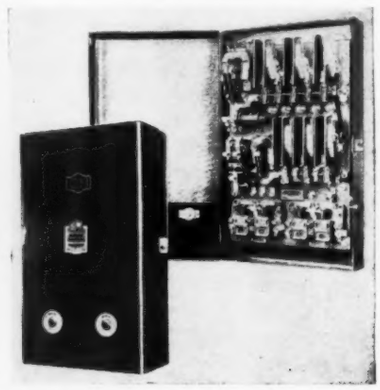
DELUSTER S-342, a delustering compound for producing a subdued luster on hosiery and other fabrics, has been introduced recently by Jacques Wolf & Co., Passaic, N. J. This product is a white powder, soluble in cold water, and is said to produce a permanent delustering effect in one operation without injury to the fibers. Since the quantity of Delustre S-342 required for delustering is usually not more than 2 to 3 oz. per gal. of liquor, it is found to be economical to use. In practice the powder is dissolved in cold water, and this solution is added to the machine containing the goods to be delustered in the required amount of cold water. The goods are allowed to circulate for 20 min. to insure penetration. Steam is then turned on, and the temperature of the bath is raised to 100° to 120° F. The goods are allowed to circulate at this temperature for another 20 min. to acquire a permanent delustering. The fabrics are rinsed, and then finished, or extracted and dried.

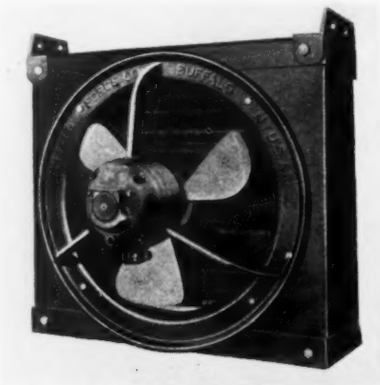
Automatic Controller for Multi-Speed Motors

DEVELOPMENT of a new automatic controller for two-speed, consequent-pole type, squirrel-cage motors has been announced by Cutler-Hammer, Inc., 207 Twelfth St., Milwaukee, Wis. This controller, known as Bulletin 9739, functions to start the motor and to change its speed by reconnecting the motor windings. It is designed to provide thermal-overload protection at both motor speeds and low-voltage protection. A separate push-button master switch with "stop," "low," and "high" buttons provides three-wire remote control.

These new controllers are furnished for constant-horsepower, constant-torque, or variable-torque motor. A sequence-compelling feature can be furnished, which makes it necessary to always start the motor on low speed before bringing it up to high speed. The entire mechanism is mounted on a single slate panel, which is easily removed from the case by removing four screws. The split-type enclosing case provides easy access to all parts when the cover is opened. Conduit knockout holes are provided in the top, bottom, and sides of the enclosing case.

Controller for two-speed, squirrel-cage motors





Small, light-weight unit heater of new design

Unit Heaters

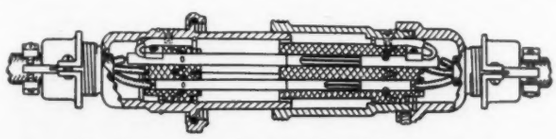
SMALL, light-weight unit heaters in a new model have been announced recently by Buffalo Forge Co., Buffalo, N. Y. These heaters, designated as Model B, are of the suspended type and are available in eight sizes. Among the advantages claimed for this model are quietness of operation, low operating costs, and attractive appearance. Structural features of the heaters include die-stamped and welded casing with reinforced corners, improved fan designed to give increased air delivery without increased power consumption, and separately adjustable discharge louvers. Non-corrosive heating elements of Aerofin are employed. The heating coils, which are suitable for steam pressures ranging from 2 to 250 lb., have been specially developed for the Model B heat-

ers. Fully enclosed motors are standard equipment; variable-speed-capacity motors, affording three operating speeds, are recommended and are available when requested.

Extension-Cable Connectors

EXTENSION-CABLE connectors in various sizes and capacities, designed for use with portable electrical apparatus to obviate long and unwieldly sections of cable, have been placed on the market by Crouse-Hinds Co., Syracuse, N. Y. Portable electrical apparatus is commonly supplied with electric power from a plug-receptacle source of current. The usual method, especially for small devices, is to attach a portable cord or cable permanently to the portable device. At the other end, the cable terminates in a plug which can be inserted in a receptacle. In the case of portable apparatus taking large current the portable cable is large, and any reasonable length permanently attached becomes difficult and awkward to handle.

This difficulty may be overcome by the use of extension-cable connectors which permit the cable to be made up in sections of suitable length. The cable lengths are made up with a plug at one end and a receptacle for extension-cable connectors at the other end. A plug is mounted on the portable apparatus to which this con-

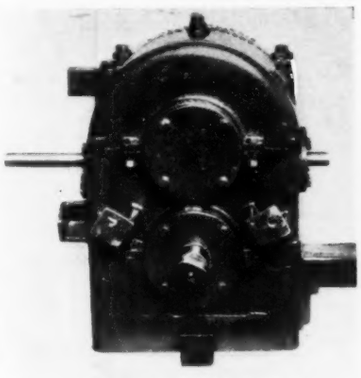


Sectional view of extension-cable connector

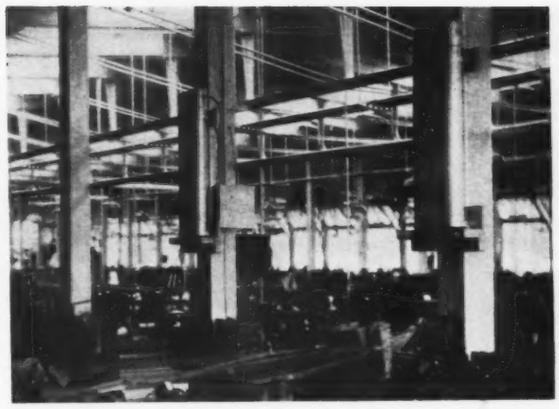
nector receptable can be attached. If desired, the plug is supported on the portable apparatus by a chain or similar means to take the cable strain and allow the plug to align itself with the pull. When two or more cable lengths are used, the receptacle of each cable receives the plug of the next, except that the receptacle of the last cable receives the plug mounted on the portable apparatus. No live contacts can be exposed by disconnecting the cable at any point.

Gear Unit

ANNOUNCEMENT of a two-speed gear unit of the fully enclosed, dust-proof, split-housing type, has been made recently by Gears and Forgings, Inc., 3024 Woodhill Rd., Cleveland, Ohio. The unit is particularly adaptable to coal-stoker service. The two speeds are controlled outside of the unit by the conventional ball-and-socket shift lever which operates a double-jaw, heat-treated, alloy-steel clutch. This clutch is of the ten-jaw type, facilitating prompt engagement at any speed or load. Gears and shafts are of high-grade, forged nickel-steel, heat treated, ground, and hardened to give maximum toughness and good wearing qualities. The worm gear is of S.A.E. 65 bronze. All principal bearings are of the anti-friction type. These are accurately mounted and selected for the load at each point. The housing is reinforced with ribs to provide a rigid, compact design. Through a unique arrangement of gears, the oil level is maintained below the input and output shaft, thus insuring against any possibility of oil leakage. All gears and bearings are afforded adequate lubrication by a simple and efficient splash system.



Two-speed gear unit



Capacitors installed in a textile mill for individual motor correction

Power-Factor Correction at the Motor

CORRECTION of power factor in textile mills by the installation of individual capacitors at the motor terminals is a development announced recently by C. E. Swanson, engineer, Electric Machinery Mfg. Co., Minneapolis, Minn. Individual-motor power-factor correction realized by connecting capacitors to the motor terminals is said to be an effective way of correcting low power factor, since it minimizes the magnetizing current in the power circuit to the motor. Thus, it results in lower line losses and improved voltage conditions, with the consequent beneficial effect on the speed and starting and pull-out torque of the motor, and also enables additional load to be carried by the feeder lines without overloading the power circuits.

The announcement states that in one textile mill, power-factor correction was needed to correct the existing low power factor of the 63-kw. load. Induction motors running partly loaded had pulled the power factor down to 66.2%. Four 5-kva. capacitors were installed to individually correct the power factor at the motor terminals. These capacitors, strategically placed at the ends of the feeder circuits, resulted in the immediate correction of the power factor to approximately 78%. In addition, the installation of the capacitors eliminated the necessity for a larger service entrance and for a new power feeder which would have been required because of a contemplated addition in load. Thereby direct savings in capital expenditure were effected and the voltage regulation was also improved to such an extent that the transformer connections were changed to the next lower tap.

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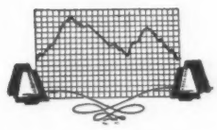
TEXTILE WORLD ANALYST



Cottons, Facing Gains, Still Need Guidance

Restrained Production of Goods and Curtailed Acreage to be Helpful, Says Dr. Haney

Summary: **The current recovery in raw cotton does not seem likely to be long sustained, but acreage reduction and continued manufacturing curtailment are probabilities which indicate a higher level in the early part of 1931. Yarns seem to be gradually stabilizing, and cloth should gradually work higher.**

●

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

ONE of the outstanding features of the cotton situation of late has been the large volume of exports. In August and September, the figures were at the rate of over 11 million bales for the crop year; and, at that rate, even if domestic consumption should amount to only 5½ million bales, the total disappearance would be something like 16½ million bales. The statistical balance on hand at the end of the year might be as small as 2½ million bales, and the carryover would be considerably reduced. Unquestionably, the export figures have suggested considerable investment buying.

Also significant is the probability that there will be a serious effort to curtail the acreage next year. The low price of cotton makes it a distinct possibility that there may be sufficient curtailment to make the new crop prospect seem bullish as the next season approaches.

Of course, all this is hypothetical. It is quite possible that exports may fall off, and some indications of this have appeared recently. It seems highly probable, however, that sometime before next summer a considerable advance in the price of cotton will occur. To be sure, a sharp rise would tend to reduce consumption and to stimulate production, but the advance would actually have to materialize before it could have such an effect.

Bull Points

1. The acreage reduction program, backed by low prices.
2. Some unfavorable weather reports concerning the early frosts as tending to reduce the top crop, and rains in the Southwest, particularly Texas.
3. The peak of the into-sight movement and hedging pressure seems to have been passed.
4. Exports have been unusually large; low prices, and in some cases depleted stocks, stimulate foreign investment.
5. Price of American cotton compares more favorably with that of competing Indian and Egyptian cottons.
6. Manchester reports a little better inquiry for cloth; some improvement in buying reported in France and Poland; a little greater confidence concerning Oriental conditions.
7. A large part of cotton receipts going to cooperatives for holding.
8. Steady trade buying of futures.
9. Firmness in the markets for finished goods, and better manufacturers' replacement margins.
10. Consumption of heavy cottons (including tire fabrics) said to be increasing.
11. The speculative market has shown good resistance to selling pressure.

Bear Points

1. Ginnings to Oct. 18 indicate that the crop has been under-estimated.
2. Fine weather, good quality, and rapid ginning of the crop in eastern sections.
3. World depression is against the accumulation of such large stocks abroad as in some previous periods of low prices.
4. Large interior and port stocks, the latter in spite of large exports.
5. The expansion of exports appears to have been checked, and the amount of gain over last year has decreased.
6. Domestic mills are well stocked, buying little spot cotton and that on a hand-to-mouth basis.
7. Yarns continue dull and only moderately firm; carded sales yarn orders small and occasional price concessions reported.
8. There has recently been some lull in the goods trade, and September figures show no improvement in the orders for gray yardage as reported by finishers.
9. Domestic exports of cotton cloth have been running much behind a year ago.
10. Spot sales in the South continue small, with some indications recently of a lull in buying.
11. Speculative interest small.

The slight increase in spinners' margins may be considered as encouraging, but is not conclusive, since it is largely seasonal and has been sustained only through curtailment of manufacturing.

Current Demand and Supply Unfavorable

From the standpoint of the cold figures of demand and supply, there is little basis for higher prices in the near future. A sustained advance in raw cotton should depend upon (1) the development of the outlook for next year's crop, and (2) the development of improved

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demand for textiles. The plain fact is that the supply of cotton in the United States is far above average and the largest for the season since 1926. No declining trend in the supply curve appeared in September, although one usually does.

An equally plain fact is that domestic mill consumption was the lowest for the month of September in many years and has been below average throughout the year. This goes along with the further fact that the replacement margins of the average cotton manufacturer are far below average and the lowest for September in many years.

We conclude that the chief basis for any early advance in cotton must be found in the technical condition of the market, and the only hope for sustained recovery this season lies in crop reduction and in expansion of the textile business. These are the things for the investor to watch. It can be said that both potentialities are as certain to come in time as anything can be which involves human policies. The cotton acreage is bound to be reduced more or less. Mill consumption of raw cotton will pick up in time. Both of these factors, however, will take time to work out, and their working out tends to set up resistances. To the extent that the price of cotton rises, the pressure to reduce acreage becomes less; and to the extent that mill consumption increases, the pressure on the goods market also increases. *It would be better for all concerned if expansion of mill consumption could be delayed a few months longer, and the price of cotton could continue low, until the markets for yarns and goods are thoroughly liquidated and the gains thus far made well consolidated.*

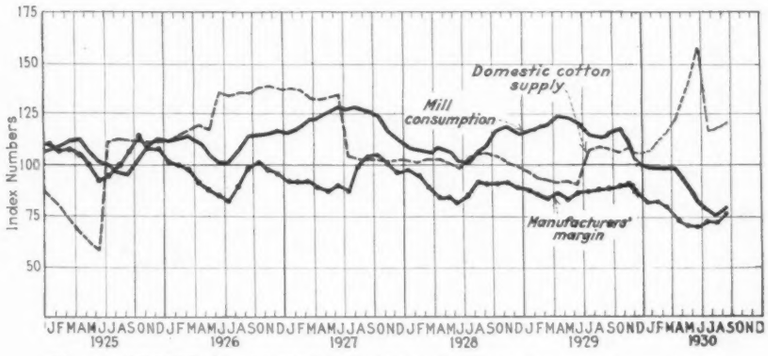
Domestic cotton supply
Mill consumption
Manufacturers' margin
Index Numbers
175
150
125
100
75
50
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929
1930

Fig. 1—GENERAL COTTON BAROMETER: Consumption—Average Daily Adjusted for Seasonal Variation, three-month moving average; Manufacturers' Margin—Average of Replacement Margins; Average Monthly Available—Net Domestic Available for Crop Year Adjusted for Seasonal Variation. 1921-1926 = 100 for all indexes.

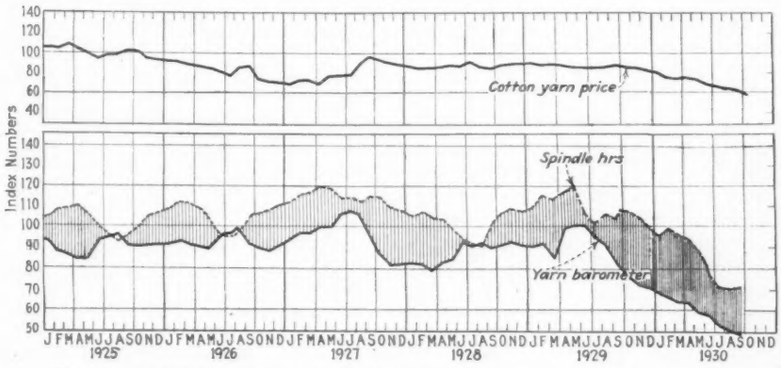
Cotton yarn price
Spindle hrs
Yarn barometer
Index Numbers
140
120
100
80
60
40
130
170
110
90
70
50
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929
1930

Fig. 2. COTTON YARN BAROMETER: Cotton Yarn Price TEXTILE WORLD *Index. Spindle Hours—Three-month moving average (Dept. of Commerce). Yarn Barometer—Based on orders from cotton cloth. Average of recent years = 100 for all indexes.*

YARNS STEADIER; GRAY GOODS STRONG

The average price of yarns in September was 60.1% of the 1921-1925 average, against 61.7 in August, and 86.3 in September, 1929. This is the lowest monthly average since July, 1921. Preliminary figures indicate that the October average price of cotton yarns will be still lower, probably about 59% of the average for 1921-1925.

This reflects the low level of the orders for cloth (there having been a less than seasonal gain in orders for gray yardage in September), and the fact that stocks of some yarns are still large. The latest available figures for carded sales yarns show stocks not much below peak levels. According to our measurements, spindle activity has probably not even yet been curtailed sufficiently to correct the over-supply of yarns in general. The spinners' margins in September took a distinct turn for the better and in October a further slight improvement in margins is indicated. Margins are, however, still very low and such increase as has occurred may be merely seasonal.

It seems that the yarn situation is near a turn for the better. If spinners, however, follow precedent and speed up production as conditions improve, the recovery will be delayed. If they hold production down, the recent low price is likely to be the bottom and an upward trend should develop in the not distant future.

Gray goods prices in September averaged unchanged from August at 60% of the 1921-1925 average. This compares with 81.1% a year ago. It will be noted that yarns have fallen to the same relative level as compared with 1921-1925 average as gray goods, thus tending to improve the position of the weavers.

In fact, weavers' replacement margins in September gained for the third successive month. The unfilled orders for cotton cloth turned up more than seasonally in September, for the first time in a good many months. Allowing for seasonal variation, stocks of cloth are the lowest in about a year.

In a good many respects, the situation resembles that found about August, 1928. Margins are up, mill consumption and spindle activity have increased, unfilled orders are up, and stocks of cloth are down. Stocks of goods are even lower than in the fall of 1928. Because the industry showed improvement in the earlier period, and cotton prices rose, one might expect something of the sort now. Unfortunately, however, there are certain differences which make the comparison less favorable than it seems at first sight. The supply of raw cotton is much larger. Stocks of yarns are greater. The unfilled orders for cloth are smaller and orders for finished goods much lower. Manufacturers' margins in general are lower. The general business situation in the fall of 1928 was bullish, while the present finds us in a general depression.

Our conclusion is that the cotton textile industry can not afford to expand as rapidly now as it did in the latter part of 1928. It certainly seems highly improbable that raw cotton can advance as much as it did between September, 1928 and December of that year. But the similarities are sufficient, together with the other favorable factors noted above, to justify the conclusion that the whole cotton industry is in process of a turning movement, and, if textile production is held down for a while, followed by reduced acreage next year, sustained gains will probably develop all along the line next spring.

There are two great problems which confront the forecaster: (1) the fact that the bottom of the cotton textile cycle comes this time somewhat in advance of the bottom of the general business cycle,

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which handicaps the recovery in the former; (2) the fact that cotton progress at present depends on curtailment, particularly in textile production, which makes any early gains in prices act as a resistance to improvement. Thus, both these facts tend to operate as a drag upon the forces of expansion. One outcome that seems not improbable might be a rally, or a series of rallies, followed by a setback in the early spring. Such a possible outcome might be constructive in the long run if it should operate to curtail the new crop. Such a course, too, would allow the upward swing of the cotton cycle to become synchronized with an upward swing in the general business cycle.

The Textile Trend

COTTON TEXTILE MARKETS: Cotton goods have made great strides toward better conditions, including larger manufacturing margins, since the beginning of September. Progress has continued during the week although gains have been less spectacular. Prices, however, are becoming firmer; stocks continue to be reduced; producers again decide to adhere strictly to their curtailed production schedules for the balance of the year, and lines of fabrics that had previously been lagging behind print cloth sales have been catching up with the procession. Re-establishment of previous denim price is an example of the last named movement.

WOOL TEXTILE MARKETS

Wool goods are not showing the improvement noted in other textile markets during recent weeks. Manufacturers are complaining of lack of business in most lines. Men's wear new spring business is slow to develop and Fourth Avenue houses do not look for activity until late in the season according to the way buyers are ordering at present. Fear is expressed that delayed buying will result in a rush as was seen late in heavyweight season and orders will be lost because of insufficient time. Dress goods, cloakings and other lines for women are more active by far than men's wear but no rush is apparent in them.

KNIT GOODS MARKETS

Knit goods markets are holding their own, and certain groups have improved their position. Half-hose demand is stronger; there is a trade-up tendency; call for 25c. goods continues active but there is more pressure on 35c. lines. Prices are somewhat soft, but the knitters are more confident. Heavyweight underwear is firm, with mills selling all they can produce. Cold weather has helped demand here, as in heavyweight sweater field. Staple sweaters, especially boys cotton-and-worsted slipovers are moving well, mills selling four to five weeks ahead. Swim suit bookings for 1931 have slackened, but situation is satisfactory.

SILK TEXTILE MARKETS

Raw silk continues its slow advance, interrupted with occasional slumps; the week finds prices for most months 10 to 13c. ahead. Manufacturers are still skeptical of rise, but trade believes that two more weeks of stability will bring a definite improvement. Outlook is good. Primary market firming has spurred call for thrown yarn, and prices are considerably stronger. Spun yarn is in better call, with moderate future buying. There is a slow pick-up in broad silks. Mills are still doubtful of raw silk stability, and cover hesitantly, and cutters and retailers buy only nearby. Decorative fabrics, especially satins, in good call. Trade sees good spring for shantungs, but increased output raises question of possible overproduction. Chiffons and cantons in moderate demand.

Cotton Market Advances

Increased Demand From Both Trade and Investment Interests

BULLISH or investment sentiment promoted by the relatively low price of cotton found an expression in more general and aggressive buying during the week. This was promoted, no doubt, by a variety of circumstances. Improved reports from the cotton goods markets; weather conditions in the South which tended to eliminate any hope of a late season increase in estimates of the crop; indications that the first rush of cotton to market was pretty well over. These features have been combined with a more or less general belief that if prices do not go higher in the meantime, there will be a reduction in acreage next spring. Buying came from both trade and speculative sources.

Previously trade buying had been chiefly on scale-down orders. On this latest advance there was evidently a disposition to raise the limits on buying orders for this account, while there was covering by speculative shorts and some fresh speculative or investment buying through commission houses. This culminated for the moment, apparently, on the advance of last Tuesday which carried the price of new December contracts up to 11.58 and July to 12.35, or about 1½c. per pound above the low records of the season which were established just before the publication of the last Government crop report. This advance seemed to bring in a little more southern selling and considerable realizing, while there may have been some local selling for a reaction, but offerings were taken quite readily and it was significant of the change in sentiment that there was talk of the possibility of declines through a weakened technical position whereas a few days ago the feeling appeared to be that nothing more than technical rallies could be expected until there was a decided improvement in trade or a larger proportion of the crop had been marketed.

CENSUS BUREAU REPORT

The report of the Census Bureau showing 9,252,011 bales ginned prior to Oct. 18 was about in line with the forecasts, but rather under the expectations of some traders who had been clinging to crop ideas of over 14½ million bales. On the whole, they appeared to be without any particular effect on the market but if anything they tended to promote confidence in the Government's Oct. 1 forecast of 14,486,000 bales. Of course no one knows just what the average weight of bales in this crop will be, but assuming that it is equal to the average weight of the last four seasons, this Oct. 1 forecast of 14,486,000 bales of 500-lb. gross would mean about 14,286,000 running bales. On that basis the ginnings reported to Oct. 18 would represent 64.8% of the total crop compared with an average of 57.8% for the last six years. On the same basis the ginnings prior to Oct. 1 would represent about 44.1% of the indicated total compared with a six-year average of 38.5%. On this comparison the excess in the percentage of the crop ginned over the six-year average to Oct. 18 showed some increase as compared with the figures for Oct. 1. This may possibly mean that bales are running lighter, but the trade is now little interested in statistics of supplies so far as the American crop is concerned, and is watching the southern spot situation and cotton goods markets.

Evidently the holding movement continues in the South and while there are rather conflicting reports concerning demand, it is quite clear that current offerings are being absorbed sufficiently well to maintain a steady to firm basis. The movement of cotton to market has been tapering off apparently. This may be due in part to unfavorable weather, which is also lowering the grades of cotton remaining in the fields, even if it

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Better Feeling at Memphis

Memphis, Tenn., Oct. 27.—Feeling in the cotton market here is decidedly better. Spot activity, which developed towards the close of the previous week, continued. While caution is still conspicuous, cotton men, for the first time this year, are expressing confidence in prices. Merchants, while admitting that mill inquiry has improved, say that actual sales are small, although some deliveries, it is understood, run through the first quarter of the new year. At the same time, the brisk demand, which is broad as to the character of cotton wanted, seems to indicate something more than buying for stock. High grade offerings are already becoming scarce, which may explain in part the demand for these cottons.

Staples, although improved a little, are still in relatively poor demand and it is often possible to buy 1⅛ in. staples at about the price of 1 3/32 in. which command full values. The more active demand has encouraged first hands to raise their price ideas and they have become more difficult to deal with. The official quotation has raised the basis on 1⅛ in. and 1 5/16 staples 25 points, but it is usually necessary to shade in order to effect sales.

Total sales for the week, including f.o.b., were 40,179 bales against 59,411 last year and 30,763 the year before. Receipts, sales and stocks made new high records last year. The weather during the week was favorable for the harvest east of the Mississippi River but somewhat unfavorable westward. It is quite generally believed here that the government estimate is too high on Mississippi and Tennessee and possibly on Arkansas.

Cotton Yarn Prices Jump

October a Good Month for Shipments

THIS has been an exciting week in yarn. Cotton advanced rapidly and yarns had a difficult time of it trying to keep quotations in line with the raw material changes. While sales indicate that advances have not quite kept up with cotton changes, spinners and dealers have made much progress, and, at the time of writing, yarn prices average a cent higher than last week so far as asking-prices are concerned and half cent in larger sales.

Yarn trade, sellers and consumers alike, were caught unawares by the rapid move upward in cotton. Indications are that much larger inquiry from all trades will be seen within the next few days, buyers endeavoring to buy at old prices. This will be impossible in most instances as the upturn in cotton is just the development that spinners have been waiting for and they are making the most of it.

Single Combed Counts Active

Spinners' quotations have kept abreast of cotton changes and many of them will not accept business for any less. There are houses in New York and Philadelphia, which have been booking substantial orders ½c. under spinner's level. Sales of large size have been made to both weavers and knitters, important contracts in single combed yarns being made by large knitting concerns located in the Middle West.

Business booked during the last few days of October helped considerably in bringing the month's total up to make a good comparison with September volume for a number of the larger houses on Chestnut Street. One specialist on weaving yarns states that October volume was fully up to September.

Prices Up a Cent

Concerns that handle knitting yarns report a fair month in combed but not so much activity in carded qualities. Proof of this is seen in quotations, knitting yarns lagging behind the procession in revising quotations upward. At the middle of the week spinners were quoting 23½c. for 20s-2 warps of average quality and sales were reported ½c. under. This compares with sales of carded knitting at the same time at 23c. for 20s.

Forward Delivery Inquiries

There are numerous larger inquiries in market at the present time for delivery many months ahead. Several underwear concerns have been making inquiry for contracts to run well into next year, one house reporting next July shipments mentioned in one of their offers.

Southern market centers displayed more confidence than has been noted heretofore. Advance in cotton together with further evidence of night-shift elimination gave markets there a better tone than has been seen. Southern weavers and knitters were inclined to anticipate their yarn requirements for several months ahead, evidently convinced that recent prices represented the low point that will be seen in cotton and yarns.

Southern Markets Active

Carded qualities for weaving were considerably more active and prices advanced, quotations for 20s-2 being 23½c. Combed yarn spinners reported that sales had increased both in number and size of contracts.

Sales yarn spinners of Gaston County who unanimously endorsed the institute's proposal for the discontinuance of night operation for women and minors under 18 years of age at a meeting in Gastonia Monday, have operated during the week at approximately 40% of normal capacity. While this rate remains distinctly unfavorable from spinners' viewpoint, it represents a slight increase in last two weeks.

It is less of a buyers' market than has been seen in many months. Spinners are reluctant to sell their production far ahead and when future deliveries are being considered spinners quote as much as 2c. higher than for nearby. This shows how they view the future.

Cotton Goods Sales Large

Tickings, Plaids and Cheviots In Demand

BRISK trading in cotton goods is the general rule. Lines that have been most active since the buying wave began about the first of September have continued selling, and, what is more important, fabrics which had been holding back are coming into more prominence. A number of houses report that all lines moved well with them this week and last, the first time for months this has been true.

Prices have not changed, which is important since raw cotton passed through one of the best two-week periods for several months. Goods prices have not advanced, but the market as a whole appears to be consolidating its gains and there are firmer trends here and there, all through the market. The impression is given that if all goes well manufacturers will in near future be able to command prices that represent an even better margin than they obtain from current sales.

Margins Must Expand

They have widened margins somewhat, but complaint is general that

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much remains to be accomplished from this angle. If trading in cotton goods continues and curtailment in production, as has just been decided, will continue on the same basis as recent weeks for the remainder of this year at least, then producers' margins will undoubtedly widen.

Example of this may be seen in the announcement of large denim firms that the previous price basis has been re-established. Another is seen in firmness of prices on 80 squares in print cloth section. On this number sellers quote 8c. for the balance of the year where formerly a price this high was procurable only for spots. While prices did not advance all along the line, during the week there has been a general strengthening of values.

Print Cloths Selling Well

One of largest sellers reports that active trading has been seen in print cloths, principally on 80 squares and 68x72s. Good demand for colored goods developed and for several days they moved at a rate surpassed only by one week in September for best volume of the year. Sales of tickings, plaids, and cheviots were the best on record for this period. Although definite figures are not obtainable as yet, indications are that sales of all gray goods in October were considerably larger than production and that stocks were further reduced.

Producers have already made slight gains in margins and while progress is expected to be slow, further gain will come in this direction if raw material continues strong and demand for all goods broadens or even continues at the present rate. Cotton goods are showing the way to better business conditions generally.

◆Cotton Waste Prices Firm

CONSUMERS of cotton wastes continue to show greater interest in the Boston market and are finding it more and more difficult to pick up good-size lots of spinnable materials at prices ruling during the last two or three weeks. The curtailment programs in effect in many mills in New Bedford and other fine goods centers has brought about a marked decrease in the available supplies of peeler comber and strips, and prices on these wastes are very firm. For ordinary qualities of peeler comber 9c. is asked by dealers while the No. 1 comber is held at 9½c. and over.

Wastes from Egyptian cotton are also relatively scarce and firm in price. The 7c. duty on foreign staples has brought about a decline in the consumption of Egyptian cottons and this in turn has affected the supply of Egyptian wastes.

Foreign Wool Consumption Gains

Increased Use of Combing Wool Above 50s; General Buying Sluggish

WOOL buying on Summer Street has again become sluggish, sales for small quantities at fairly firm prices. Foreign wools are moving slowly out of bond with prices paid slightly under market quotations. Domestic merino grades are still in the van covering strictly staple fine, French combing and original bag wool. Some large quantities of Texas mohair in original bags have sold recently at an average price of 40c. per pound. The demand for woolen wools is still slow and slight concessions are made on scoured and pulled wools to complete negotiations. The general market as compared with the middle of last month is about 3% lower on the average.

The National Wool Marketing Corp. expects to handle 125 million pounds, or approximately 35% of the total amount of wool shorn this year. This is a smaller amount than anticipated and indicates that the independent dealers have had a large field of operation in spite of the gloomy predictions made at beginning of the year. Montana has supplied to the cooperatives 12,548,000 lb. and Utah, in the second place, 10,068,000 lb.

The decreased consumption in the United States for year to date has been in the domestic raw material. Contrary to general impression the utilization of foreign combing wool for the first eight months of the year shows a substantial gain over the similar period of last year. Consumption of foreign combing wools grading above 50s showed a gain during this period of 5,922,000 lb.

The first half of the Australian season is now well advanced and the extent of the world demand for merino wools has been revealed. Supplies of the finest grades, needed to meet the demands of fashion, are not in excess of demand. The sales thus far have been conclusive in regard to merinos, but in case of crossbreds prediction is difficult as to what may happen when the new season is in full swing in South America and New Zealand. The closing series of wool auctions in London will open Tuesday, Nov. 25, and on the same day the New Zealand season will open at Auckland. The recent London auctions were closed two days earlier than scheduled. Supplies with the exception of a few choice sorts were in excess of demand and there was no real support from consuming centers.

The local top market shows no great improvement, but deliveries to the mills continue steady and prices are firm. Wool tops have been on a stable basis for the last four months in Boston, but in Bradford the situation has been irregular with a downward trend for several weeks.

Protected Wool Rag Market

The recovered industry is ready to meet any demands that may be made for its commodities and is well assured that any further downward revision of prices is unnecessary in order to close business. Graded rags continue to be sold in small lots, but the clip market is a trifle busier among the woolen mills. The domestic rag market has a field all itself and will no longer be handicapped by the arrival of millions of pounds annually of cheap competing foreign rags. Demand for carbonized and carded fine light merino material is quite below normal for this period of the year, the call from manufacturers of light-weight woolens has been much smaller than anticipated. This rag can be bought as low as 12½c., which price on a 6½c. basis for mixed rags is positively too low. Demand for Thibets is moderately active, some sales of the blacks and blues and of materials free of black are seen.

Wool Waste Still Sluggish

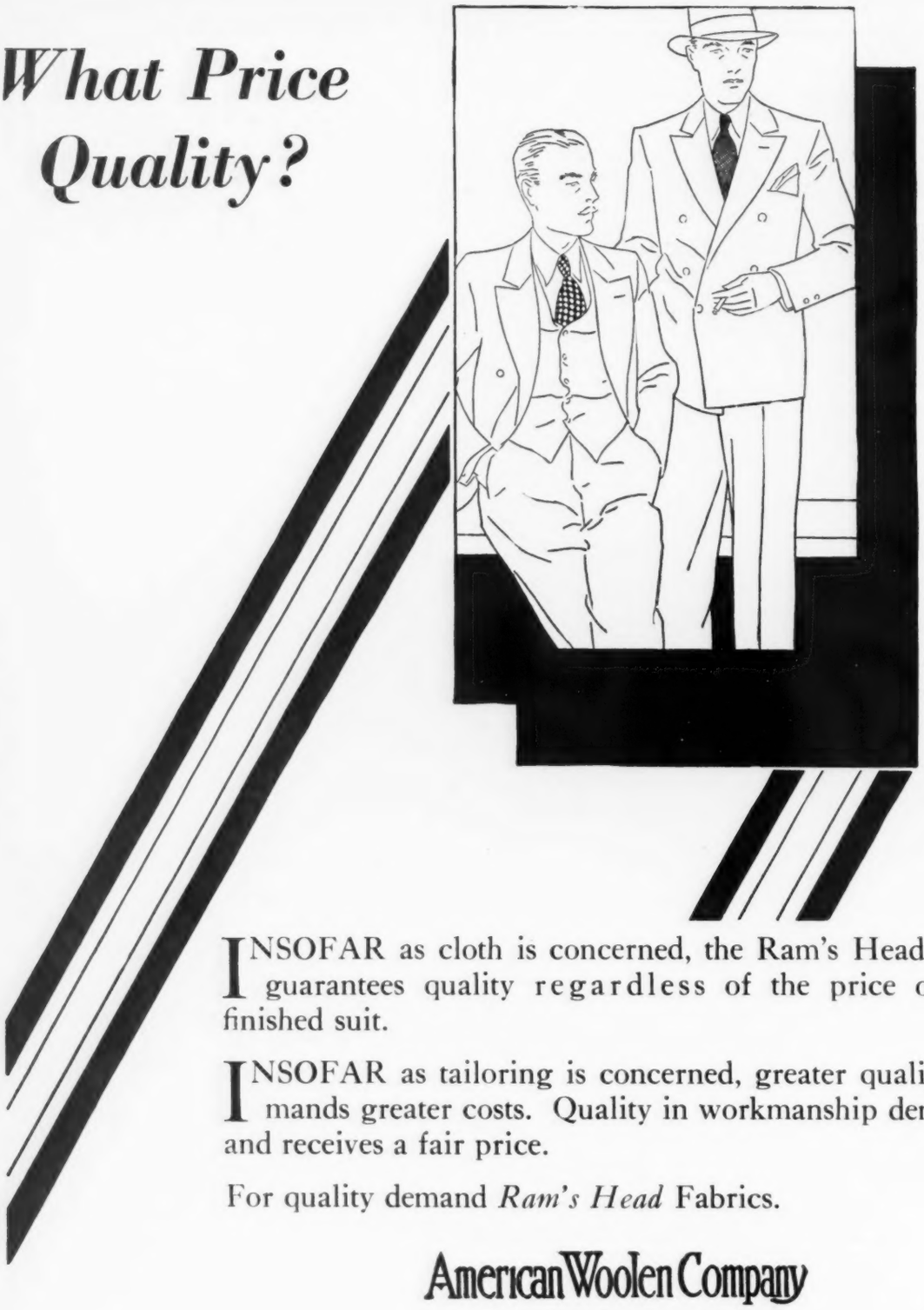
Wool waste prices are low enough and mills can obtain anything they need either white or colored at attractive prices. The trouble is in the manufacturing and merchandising fields, particularly the latter where the hand-to-mouth method of doing business has resulted in a marked curtailment in production of men's overcoats and wool blankets. This suggests better times eventually for the sellers of wools and wastes for these types of fabrics and yet the season has gone almost too far to expect any immediate reaction to a possible vacuum in heavy goods.

Resumption of Noil Imports

Activity in the noil market for month to date has been no larger than in September. Most grades are slow of movement, but fine noils continue to sell in moderate amounts. Wool combers are believed to have good-size accumulations on their hands, but have firm notions as to what they ought to bring; while on the other hand those seeking to buy noils at producing sources are naming prices that would allow them to meet the low selling level current at this time.

Consumption of camelhair noils continues relatively good. Rayon noils at 15 to 16c. are considered to be one of the cheapest of white materials available and yet little or no interest is

What Price Quality?



INSOFAR as cloth is concerned, the Ram's Head label guarantees quality regardless of the price of the finished suit.

INSOFAR as tailoring is concerned, greater quality demands greater costs. Quality in workmanship demands and receives a fair price.

For quality demand *Ram's Head* Fabrics.

American Woolen Company

Executive Offices, Boston, Mass.

Selling Agency—American Woolen Company of New York
Dept. H, 225 Fourth Ave., New York City

RAM'S HEAD FABRICS

STYLES THAT SET THE STYLE

shown by possible consumers. Reports from Bradford state that Boston is showing some interest in merino noils but there does not seem to be any prospect of large business in the immediate future. An import of 120 bales of fine noils arrived recently, also 11 bags of wool tops, the first import of tops into this city since the new tariff went into operation. Two other consignments covered 85 bales of white silk noils and 12 bales of camelhair noils. The several Continental noil markets continue to point downward.

Uncertainty in Worsted Yarns

Confidence In Current Values Not Apparent

CONFIDENCE has not yet been established in worsted yarns. There is little or no forward contracting, buyers of both weaving and knitting counts simply ordering as goods orders are booked. This is in contrast with conditions that are found, for example, in cotton goods and to a certain extent in cotton yarns, where a number of buyers are covering months ahead. There is no spring season yet in worsted yarns, orders being for fall merchandise in all cases.

One strong indication of this is in lack of orders in outerwear counts this week and last. Manufacturers have covered fall goods orders with yarn and they are now taking little yarn on new contracts. Spinners believe that bulk of fall business has been placed and that peak of activity for fall yarn movement was seen late in September. Yet specifications on all contracts are good and October will be a good month in that respect.

Yarns For Sweater Coats

There is no bathing-suit yarn business yet, this being expected late this year and early months of next, although there may be contracting ahead in advance of this time. A few contracts have been placed with French spinners for single counts but deliveries have not begun.

Bulk of knitting yarn being shipped is going into women's sweaters and coats, most being taken for novelty sweaters and counts are on the finer side. New orders call for delivery to be made quickly as possible, there being a total lack of interest on the part of manufacturers for spring goods and delivery months ahead.

There has been a fair call for English spun oxford yarns that will be used in the manufacture of sweaters, 15% oxford being in largest demand. Stocks of oxford colors have been reduced to a minimum and many qualities are not available from spinners' stocks.

October a Good Month

Although September and October have been the two best months this year with many outerwear spinners, October was considerably under that for the previous month and spinners are disappointed. They felt that peak of fall buying of yarns by knitters would occur in October. Instead of this, demand fell off and the peak so far occurred late in September. It is possible, of course that another peak will be found in November although doubted by majority opinion in the trade.

One reason manufacturers have been slow to buy ahead is the unsteadiness of prices. Outerwear spinners recently reduced their prices in English spun counts and buyers fear that it has not come to an end. For this reason they are confining purchases to small amounts on which they dicker for best prices. Spinners are willing, in many instances, to do this and large buyers obtain concessions.

Weaving lines have been dull this week, men's wear manufacturers showing no inclination to buy yarns for their new lines. There has been considerable sampling and spinners are waiting for large contracts to come to hand. Nothing indicates this is likely to develop soon although several large mixture spinners believe that beginning of contracting will be seen within the next few weeks. A good season is expected, but when buying of yarns will begin is the question.

Stocks Being Reduced

While new business in outerwear counts has been small it must not be forgotten that specifications on orders have been coming through at a rapid pace and spinners have been able to reduce their stocks to a large degree. Most active counts are reported to be difficult to locate in any quantity for immediate shipment from spinners' warehouses.

◆Will Men's Wear Season Be Late?

THERE is some difference of opinion as to just how much the short spell of cool weather helped wool goods. Dress goods houses are ready to admit that their business has benefited, although most were already doing a healthy volume before this came. Men's wear houses on the other hand blamed poor business on warm weather. Now that we have had some cool weather, they say, little actual good has been felt.

This is natural. Men's wear houses cannot expect to see a rush of orders at the first signs of cold weather. Although hand-to-mouth trading is here this cannot be too much so in men's wear which must to some extent be ordered ahead. The fact heavyweight goods are moving better from retailers' shelves will mean that some time before the end of the present season the effect will be felt by selling-houses and manufacturers.

Dress Goods Selling Well

Trading in woolen and worsted dress goods, cloaking and coatings continues at a fair rate with selling-houses and manufacturers booking business at about the same rate, or if anything, at a slightly more active clip.

Prices are not changing and the market gives the appearance of being stable after the early season revising of prices of new men's wear lines. Sellers do not anticipate any change in prices in the near future notwithstanding the lack of sustained interest in men's wear lines for the coming season. Wool and yarns are steady, although not strong as yet and with better business in the offing further decline in goods is not generally regarded as a probability.

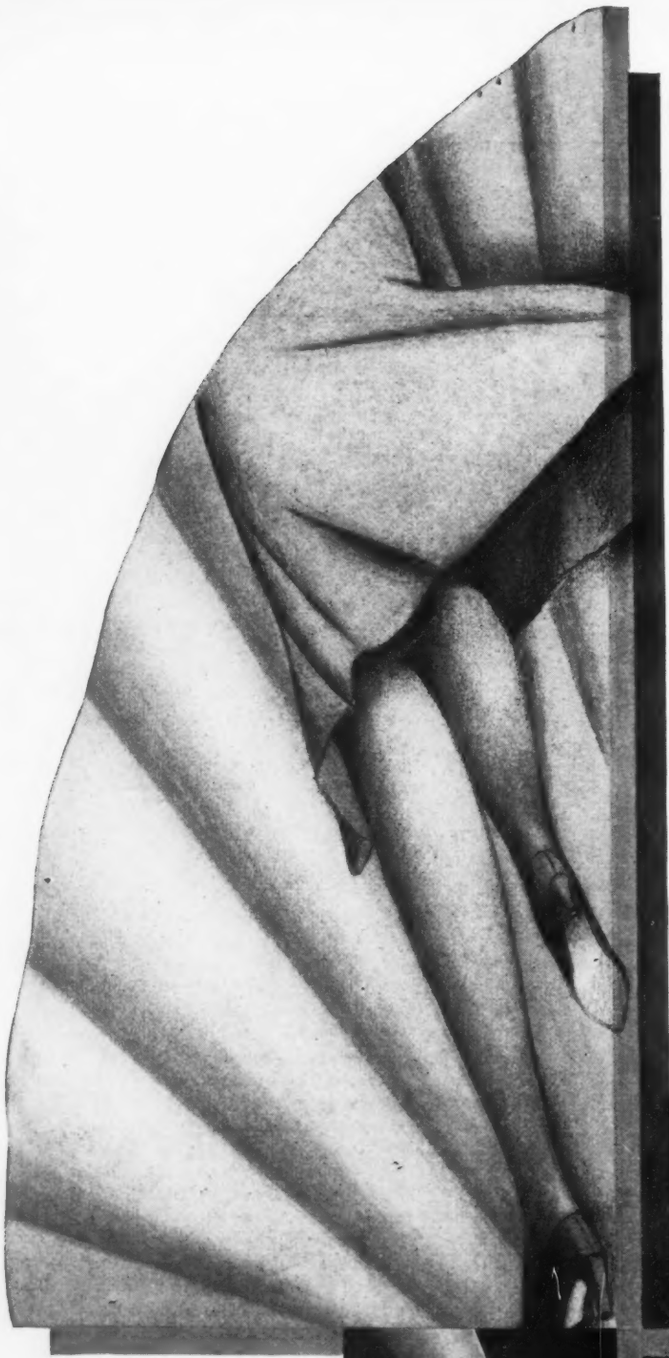
Raw Silk Gain Continues

Market Ahead of Last Week Despite Momentary Recession

A SLUMP in raw silk prices this week subtracted something from the gains made during the few days immediately preceding, but the market, at time of writing, is still ahead of last week. The softness that registered Tuesday and Wednesday did not occasion much alarm among importers, as they expect the come-back of the market to be accompanied by numerous recessions.

The outlook continues to improve, and weavers are buying actively. Prices took a big jump over the week-end, and this tended to discourage orders. Manufacturers who ten days ago bought 20/22s at $2.15 or thereabouts, became naturally hesitant when the same group leaped to $2.60, a rise of almost 25%. The consuming groups appear ready to accept the upcurve, and even to increase future coverage, when the price change is not too drastic.

Importers themselves favor a slow



SMART stockings of sheer beauty... no line or twist of seam... shaped in the knitting on the new Model K machine.

For summer sport and winter formal wear, these new stockings without seams ... snugly fitted at the ankle ... smooth foot and narrowed Gussetoe ... are today's so much more graceful mode.

No seam to twist or mar the sheer.

The "Gussetoe"... the smooth, fitted foot... with no seam or ridge.

Established 1865

SCOTT & WILLIAMS

Incorporated

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rise, finding that this is conducive to better business. Broadsilk weavers are obviously in need of raw silk; they buy, even at inflated prices, for spot shipment, but a quick upturn brings a drop in futures. The cautious import policy of raw silk houses when domestic demand was so slack, a few months ago, has had the result of reducing stocks in the New York market to the point where buyers find it difficult to get exactly what they want. There is only a limited quantity of 20/22s available, and the better quality 13/15s are scarce. Manufacturers have to pay high for spot shipment of certain desired grades, and when they can, these purchasers will wait several weeks to get the advantage of the lower quotations.

Allowing adequately for the current uncertainties, raw silk does appear to have turned the corner. Importers who continued skeptical last week, now grudgingly admit that things are brighter. The trade is still smarting from its ten months' depression, however, and there are many who look for another set-back. Assuming—and it is a fair assumption—that increased demand from broadsilk mills is one main cause for the strengthening of the primary market, then there is no early prospect of a serious recession, as these weavers may be expected to continue buying for another eight weeks, at least.

◆Broadsilk Improves Slowly

BROADSILK tone improves slowly. The firming of the primary market has not brought the quick upswing in buying that had been looked for, but there is considerable business to be had. Dress goods moves mostly for immediate consumption; cantons and sheers are in fair position, though cutters are not over-confident. Decorative farics show strength, and these lines are selling well ahead; some mills are covered into January on decorative satins.

If current indications mean anything, the number of mills manufacturing shantungs at the end of the year will be well ahead of 1929; there is speculation as to whether increased output of these rough goods may not bring a condition of overproduction. The success of shantungs last season has attracted numerous new firms to this field.

New Shantungs Pleasing

However, a flooded market is by no means sure. The new spring shantungs are exceptionally attractive; they include many distinctive novelties and it is possible, that the merits of the line may widen consumer demand sufficiently to assimilate the increased output. The new shantung prints are especially important and while demand to date has been light, they have good prospects. The trade is far from unanimous as to the relative importance of plain and printed shantungs, but all agree that the group as a whole promises well for spring.

Raw Silk Big Issue

The immediate future of broadsilk hinges largely on what happens to raw silk. Cutters and retailers alike are skeptical about the present firming but continued show of strength in the primary market will unquestionably stimulate movement of fabrics. Broadsilk outlook is brighter. The bulk of buying is spot, but future business can be obtained by persuasion. Prices tend to firmness, with a few lines still weak.

◆Silk Yarns Show Strength

CONTINUED stability of raw silk and the advancing season have combined to improve conditions in the silk yarn markets. Throwsters have been particularly favored, all the chief buying markets showing activity. Broadsilk and hosiery manufacturers are placing good-sized orders and though confidence is not strong enough to bring any appreciable future coverage, the nearby demand is so pronounced as to stimulate hope for advance buying shortly.

All thrown yarns are in good call and certain numbers are short. Most mills are operating at capacity. Increased demand had the normal result of firming the market, and thrown silk prices have jumped 15 to 20c. since last week. Throwsters are much encouraged by the improvement and look for a steady turnover for a possible five weeks.

Spun yarn movement also has been stimulated, and some large orders were placed this week. Both singles and two-ply are asked for, and there is a tendency toward future coverage. Several important firms have booked business to the end of the year, a few having January contracts on the books. The hesitant feeling of the past two weeks has gone, and there is little underselling.

January Rayon Cut is Hinted

Customers Asking Guarantee Get Intimation of Revision

CONFRONTED with prevalent rumors of an impending price cut, rayon producers this week expressed the belief that there would be no trade-wide move in that direction prior to Jan. 2. This opinion tallies with statements made by producers to their customers during the last ten days. Certain consumers in the New York market asserted that when they sounded producers on the advisability of buying yarn for January shipment, they were unofficially told to limit their coverage to the latter part of December. These consumers had asked for some assurance regarding January prices and they were told that there was "real likelihood" of a rayon price cut right after the holiday period. The reduction, if any, would probably aim to equalize the 5% blanket discount now offered by one producer.

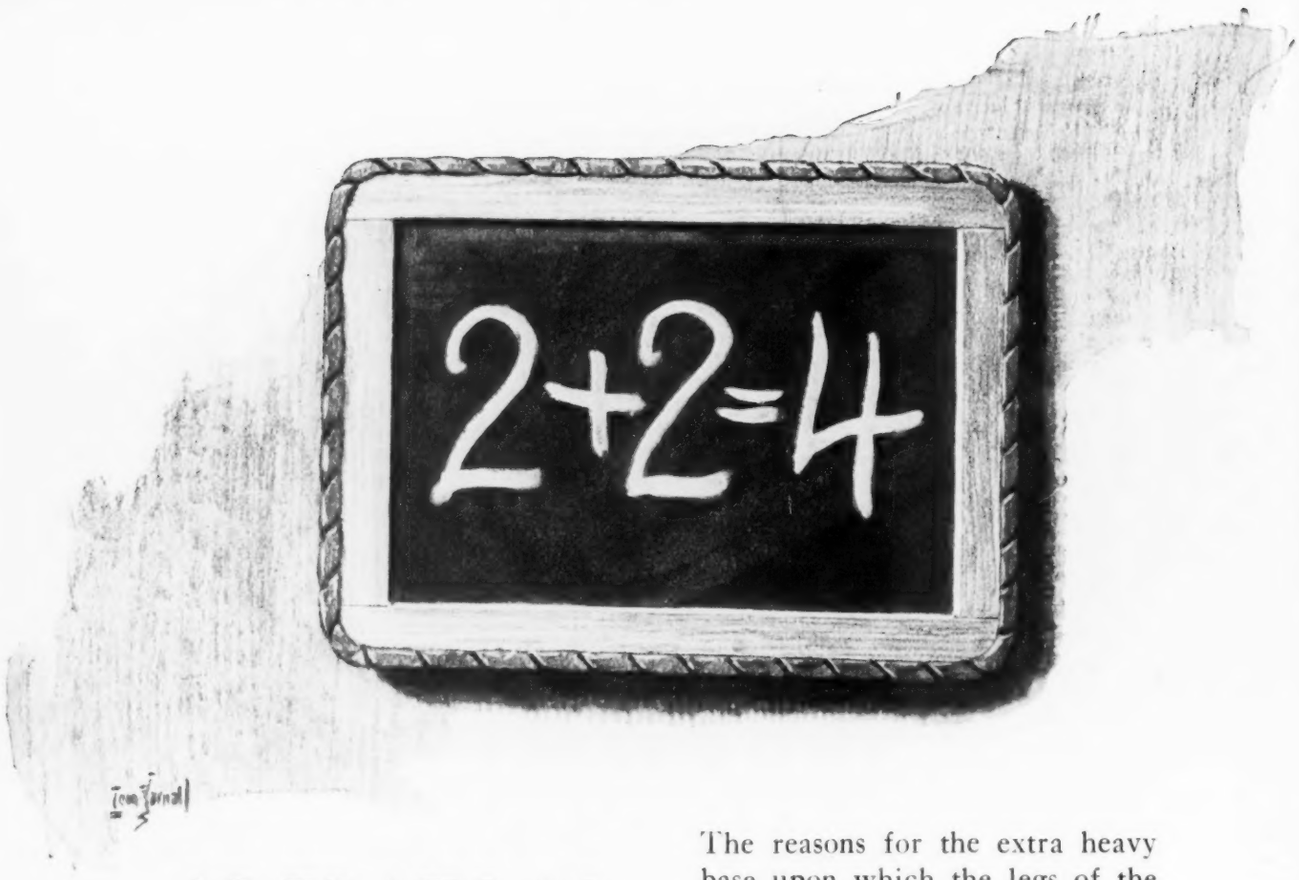
Impedes Future Buying

This situation has had the obvious effect of discouraging future contracts. Manufacturers are more confident regarding their own spring prospects and would be willing to buy ahead, if reasonably sure of prices. As things stand, however, they cannot logically cover beyond Dec. 15.

Buying tone as a whole is good, and it is hard to see any real reason for a price cut. The present weakness regarding prices seems to emanate more from the producers than from their customers. Since certain producers openly hint at a January reduction, in counselling customers against future coverage, the mill man must take the hint.

Rayon production and stock continues a serious problem. Some of the largest firms, however, are selling in excess of output, and thus managing to eat slowly into their surplus. Most companies are producing too close to 100% to permit any drop in the surplus and indeed there are indications that some are actually increasing their stocks. The need for curtailment of output is becoming daily more manifest; present surplus is estimated to total above 20,000,000 lb. and demand is due for the normal decline about Dec. 15, which will mean a considerable addition to that figure unless plants curtail.

The writer had access this week to the 1930 sales figures of several outstanding rayon companies, and the showing offered a sharp contrast to general expectations. For the first three quarters of the year, 1930 sales were very close to those for the same period in 1929; in the case of one company the figures were almost parallel. This is particularly significant in view of the off-year; however, price weakness and general reductions will probably bring the dollar volume of 1930 well below 1929, even for the first three quarters. Producers estimated that the industry as a whole would find 1930 volume to



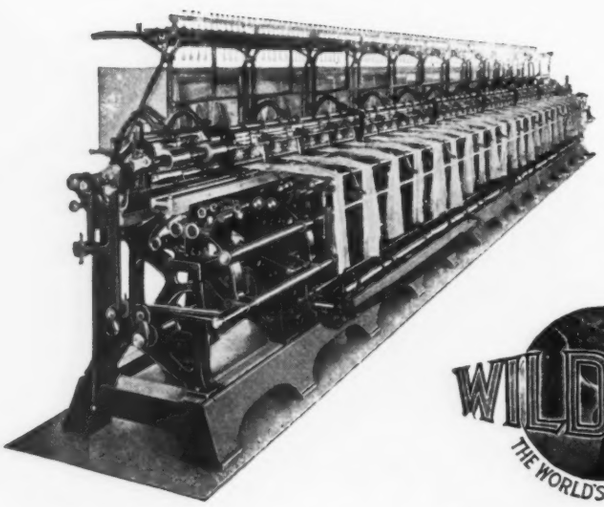
AS PLAIN AS SIMPLE ARITHMETIC

The reasons for the extra heavy base upon which the legs of the new Wildman Machine rest and for the placing of the heavy drive at the bottom instead of the top are as plain as simple arithmetic — these being perfectly logical ways in which to eliminate vibration and its hazards.

The strange thing is that no one did this before!

Write for further information.

WILDMAN MFG. CO.
Full-Fashioned Division
NORRISTOWN, PA.



WILDMAN
THE WORLD'S STANDARD

WILDMAN
FULL-FASHIONED HOSIERY MACHINE

be about 20% below last year, in the final quarter. This is normally the banner period, and sales are off average.

Rayon Waste Weak

Waste prices are very weak, and dealers are holding off on sales with the result that very little stock is moving. Manufacturers want open bleached at 13 to 14c. and the trade insists on 15c. No real improvement is looked for until manufacturers start active production of their lines and are obliged to meet prevailing waste prices.

Half-Hose More Active

Improved Tone in Market; Underwear Shipments Backward

KNIT goods markets are holding their own, with half-hose in a better position than last week. There is a tendency to trade up in men's hosiery; 25c. goods continue active, but there is more pressure on 35c. lines and even the hitherto indifferent 50c. range has improved. Numerous firms are selling ahead on half-hose. Demand stresses the synthetics, and preference is for clocks in dark shades. There is less distress merchandise available, but prices are still weak. Men's hosiery producers are more optimistic, however, and they believe that, given a good spell of cold weather, November would be active throughout.

Buyers are placing good-sized orders for infants' socks, mostly popular-priced lines and there is little underselling at this end. Men's and women's wool hosiery are quite firm, with mills selling ahead; numerous firms are booked solid into December.

Producers of women's full-fashioned complain of a downward trend in grenadine prices. Mill men find their competitors selling $10.50 numbers at $10 and even as low as $9.75. Delustered rayon seamless is in spirited call, thus reflecting the preference for lower-priced goods. Worth Street is uncertain about the stability of full-fashioned prices, and numerous sales executives forecast another cut; there is widespread talk of selling 7 thd. 42-gage at $6.50, before long. There is a growing interest in women's lace hosiery, and mill men report a sharp increase in orders this week.

Good Underwear Call

Heavyweight underwear continues firm, with mills selling all they can produce. Agents regard sales as very satisfactory. Things are turning out much better than the industry expected and, sales while still below normal, are bringing the season's turnover to an encouraging total. The cold weather of the past ten days helped jobbers and retailers to clear and they in turn have been pressing the mills for quick shipment of duplicate orders. Heavyweight underwear sales are expected to continue at a good pace for six weeks, and may even carry through to the January openings. Spring lines, cottons, balbriggans and rayons, are quiet, women's rayon underwear being the only line in this group to show movement. Women's rayons are regarded as presenting a big Christmas gift possibility, due to the tendency to give moderate-priced gifts this Christmas. Buyers are still hesitant about Christmas coverage, but early activity at this end is looked for.

Sold Ahead on Sweaters

Winter sweater staples sell steadily, mills booking four to five weeks ahead. Prices unchanged. Boys' cotton-and-worsted slipovers are a best-seller, and buyers have difficulty in getting this merchandise. Ladies' worsted rib coats are active. Men's sweaters show less movement, but some business is being placed. Practically all sweater mills are producing at capacity; the cool weather last week stimulated an already active demand, and mill men expect buying to continue without the usual lapse, right up to the mid-November openings.

Firmer Market for Textile Shares

Listed Issues Make Come-Back From Recent Low Points

FURTHER readjustments in textile stocks because of dividend cuts have been recorded lately, although the securities market as a whole has been moving sideways rather than downward. Many of the listed and more active textile shares have shown gains of 1 point or more. Industrial Rayon at 48 at mid-week showed a gain of 6½ points from the low of the preceding week. Bigelow-Sanford common at 40 was up 9 points after touching 31 on the decision to pass dividend. Amoskeag and Pacific both showed gains.

Berkshire Associates Show Loss

For the year ended Sept. 30, 1930, the Berkshire Fine Spinning Associates reports a net loss of $435,742 after depreciation of $374,396 and markdown in inventory of over $400,000. The regular preferred and common dividends due at this time were passed by directors. New quick assets as of Sept. 30, totaled $6,826,560 as compared with $8,214,099 on Sept. 30, 1929.

Otis To Reduce Capital

Directors of the Otis Co., cotton goods, Ware, Mass., have voted to recommend to stockholders a reduction in the par value of the common shares of the company from $100 to $80 by the payment on Dec. 1, 1930 of $20 per share to stockholders of record Nov. 25, 1930. Commenting on this in a letter to stockholders, President Henry G. Nichols said in part: "When the underwear business was sold the company had a large debt and the directors felt that the money might be needed in the company's business. In view of the present cash position of the company and the probable requirements, the directors are now of the opinion that a distribution out of these funds can be made. Since the funds represent money received from the liquidation of capital assets the directors feel that such a distribution should be accomplished only through a reduction in capital."

Liquidating Dividend

B. Loring Young, receiver of the U. S. Worsted Corp., has been authorized by the Superior Court of Boston to pay a second dividend of 4%, amounting to $139,560, to the Old Colony Trust Co., Boston, Mass., on the judgment the trust company holds, and which it secured in calling convertible gold bonds, which, with interest amounts to $3,488,996. The first dividend of $209,339 was paid last spring.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
60	Associated Textile	...	35-36½	.....
19	Berkshire, com	...	8¼	— ¼
29	Naumkeag	100	81-84	.....
6	Pepperell	100	85	— ½
11	Ludlow	...	124	— 6
25	Lancaster, com	100	$1 for lot	.....
...	$12,000 N. E. So. 7s 1933 notes	...	10% flat	.....
12	American Mfg., pfd	100	50	— 10
162	Total			

Quiet Week in South

CHARLOTTE, N. C.—A decline of 36c. a share was recorded in the bid price of 25 common stocks of southern cotton mills for the week ended Oct. 25 according to the weekly summary compiled by R. S. Dickson & Co. The closing price for the week stood at $63.24 per share as compared with $63.60 for the previous week.

QUOTATIONS

at close of business, Oct. 29, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	Oct. 22	Oct. 15	Oct. 23 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60	4½c.	4½c.	5½c.
38½-in., 64x60, 5.35	5½–5¾c.	5½c.	7⅛c.
39 -in., 68x72, 4.75	6¼–6½c.	6¼c.	8½c.
39 -in., 72x76, 4.25	7c.	6¾–7c.	9½c.
39 -in., 80x80, 4.00	7¾–8c.	7¾–8c.	10½c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	6½–6¾c.	6½–6¾c.	8½–8¾c.
36-in., 48x48, 3.00	7⅛c.	7⅛–7⅛c.	10⅛c.
37-in., 48x48, 4.00	6c.	5¾–6c.	8⅛c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	6⅛c.	6⅛–6⅛c.	9⅛–9⅛c.
36½-in., 64x60, 5.75	5⅛c.	5⅛c.	7⅛–7⅛c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	7⅛c.	7⅛c.	11c.
Denims, 2.20	12½c.	12½c.	16.33c.
Tickings, 8 c.z	16 c.	16 c.	20 21c.
Standard prints	7⅛c.	7⅛c.	9½c.
Eastern staple ginghams, 27-in.	8 c.	8 c.	10 c

Cotton Waste

Peeler comber	9 — 9½
Peeler strips	7½ — 7⅞
Sak. comber	8 — 8½
Choice willowed fly	4½ — 5½
Choice willowed picker	3 — 4½
Sak. strips	10 — 10½
Linters (mill run)	2½ — 3½
White spooler (single)	8 — 8¼

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.–4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.20½ – .21	22s	$0.23 – .23½
10s	– .21	24s	– .25
12s	– .21½	26s	– .26
16s	– .22	30s	.27½ – .28
20s	.22½ – .23	40s ex.qual.	.39 – .40

TWO-PLY SKEINS AND TUBES

8s-2	$0.21 – .21½	26s-2	$0.26
10s-2	– .21½	30s-2	– .28
12s-2	.21½ – .22	36s-2	– .34
14s-2	– .22	40s-2	– .37
16s-2	– .22½	40s-2 hi. blk.	– .40
20s-2	– .23	50s-2	.44 – .45
24s-2	– .25½	60s-2	.53 – .54

SINGLE WARP

10s	$0.21	24s	$0.25
12s	– .21½	26s	– .26
14s	– .22	30s	.27½ – .28
16s	– .22½	40s ex. qual.	– .40
20s	– .23		

TWO-PLY WARPS

8s-2	$0.21½	24s-2	$0.25½ – .26
10s-2	.21½ – .22	26s-2	.26 – .26½
12s-2	– .22	30s-2	.28 – .28½
14s-2	.22 – .22½	40s-2 ordin.	– .37
16s-2	.22½ – .23	50s-2	– .45
20s-2	.23 – .23½	60s-2	– .54

8s-3 and 4-ply skeins and tubes; tinged, 18–18½; white, 19½–20; waste 17–17½

HOSIERY CONES (Frame Spun)

8s	$0.20½	22s	$0.24 – .24½
10s	– .21	24s	.24½ – .25
12s	– .21½	26s	.25 – .26
14s	– .22	30s ty ng	.27 – .27½
16s	– .22½	30s reg.	– .29
18s	– .23	30s ex. qual.	.30½ – .31
20s	– .23½	40s	.36 – .37

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

29s-2	$0.35 – .36	60s-2	$0.56 – .58
30s-2	.41 – .42	70s-2	.66 – .68
36s-2	.42 – .43	80s-2	.78 – .80
40s-2	.44 – .45	90s-2	.94 – .95
50s-2	.49 – .50	100s-2	1.16 –1.20

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.36 – .37	60s-2	$0.57 – .58
30s-2	.42 – .42½	70s-2	.67 – .69
36s-2	.43 – .43½	80s-2	.78 – .80
40s-2	.45 – .45½	90s-2	.97 –1.00
50s-2	.50 – .51	100s-2	1.20 –1.25

SINGLES

12s	$0.30	30s	$0.39½
14s	–.30½	38s	– .42½
16s	–.31	40s	– .43½
18s	–.31½	50s	– .48½
20s	–.32½	60s	.56 – .57
24s	–.35	70s	.66 – .67
28s	–.38	80s	.77 – .78

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.52 – .53	90s-2	$1.31 –1.33
30s-2	.54 – .55	100s-2	1.61 –1.63
36s-2	.57 – .58	120s-2	2.01 –2.04
40s-2	.60 – .61	30s	.65 – .67
45s-2	.62 – .64	40s	.70 – .72
50s-2	.64 – .66	50s	.77 – .79
60s-2	.72 – .74	60s	.85 – .87
70s-2	.84 – .86	70s	.97 – .99
80s-2	.96 –1.01	80s	1.19 –1.21

Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

	Closed Oct. 23	For Week—High	For Week—Low	Closed Oct. 29	Net Chge.
November	10 64	11 36	10 38	11 18	+ 54
December	10 85	11 56	10 57	11 38	+ 53
January	10 99	11 77	10 71	11 55	+ 56
February	11 08	11 82	11 08	11 63	+ 55
March	11 19	11 94	10 92	11 73	+ 52
April	11 30	12 03	11 30	11 84	+ 54
May	11 42	12 16	11 19	11 96	+ 54
June	11 51	12 23	11 51	12 05	+ 54
July	11 60	12 35	11 36	12 14	+ 54
August	11 70	12 42	11 70	12 23	+ 53
September	11 80	12 57	11 80	12 32	+ 52
October	10 68	.....	.....	.....	.....

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, Oct. 24	11.00	10 68	5 92
Saturday, Oct. 25	11 15	10 75	6 11
Monday, Oct. 27	11 25	10 90	6 15
Tuesday, Oct. 28	11 65	11 30	6 26
Wednesday, Oct. 29	11 45	11 10	6 39
Thursday, Oct. 30	11.25	11.00	6.32

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, Oct. 29		Change
November Sak	18 40	+1 08
December uppers	12 54	+1 20

Nov.-Dec. Shipment c. i. f. Boston.

(Tariff not included)	(Prices Nominal)
Fully good fair Sak	21 25
Fully good fair to good Uppers	14 75

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	21½
Peruvian Pima No. 1	25
Peruvian Moderate Rough	18
Peruvian Full Rough	23
China Tientsin No. 1	11
India Rough	9 to 11½
India Smooth	8½ to 1

(By Gerald G. Loeb, New York.)

BASIS MIDDLING

	Saturday, Oct. 25	Saturday, Oct. 18
10 markets average	10 31	9 60
Memphis	9 70	9.00

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	11 95@12 25c.
1 3/16-in	13 75@14 00c.
1¼-in	18.70@19.00c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total	40,179	42,389	38,755
F.o.b. included in total	35,256	38,026	33,694
10 markets	262,501	229,269	241,084

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	52,789	70,451	41,996
Gross receipts	83,654	114,374	80,821
Total since Aug. 1, net	261,336	366,942	216,614
Shipments	47,153	72,959	59,650
Total since Aug. 1	232,982	391,030	286,423
Total stock	311,460	295,242	187,226
Increase for week	36,501	42,409	21,169
Unsold stock in hands of Memphis factors	70,397	.....	.....
Increase for week	10,854	.....	.....

AVERAGE PRICE NOV.–DEC. SHIPMENT
HARD WESTERN COTTON
F. o. b. New England

	Middling	St. Middling
1 1/16 in	13¼–13½c.	13½–13¾c
1⅛ in	14 –14½c.	14½–14¾c.
1 3/16 in	15½–15¾c.	16½–16¾c.
1¼ in	19 –21c.	20 –22c.

Basis on New York, New December 11.41c.

SPOT FLUCTUATIONS AND STOCKS

Markets	Middling Oct. 22	Middling Oct. 29	Sales	Stocks This Week	Stocks Last Year
Galveston	10.40	11.20	5,092	550,553	511,448
New Orleans	10 31	11.10	46,085	587,598	597,781
Mobile	9 70	10.50	10,631	111,324	70,682
Savannah	9 96	10.79	6,906	281,174	100,778
Norfolk	10 19	11.00	3,000	82,270	37,832
New York	10 50	11 45	1,800	229,756	98,887
Augusta	9 81	10 63	5,842	134,902	96,789
Memphis	9 20	10 05	43,337	325,883	325,923
St. Louis	9 50	10 25	.....	2,029	2,773
Houston	10 25	11 10	66,290	1,370,944	940,843
Dallas	9 70	10 55	72,747	7,964	26,609

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	.75†	1.00†	.85†	.75†	0.88†
S. G. M	.60†	.75†	.75†	.63†	.70†
G. M	.50†	.50†	.60†	.50†	.51†
S. M	.35†	.25†	.35†	.25†	.30†
S. L. M	.75*	.75*	.65*	.50*	.68*
L. M	1.50*	1.75*	1.50*	2.25*	1.70*
S. G. O.**	2.50*	2.75*	2.50*	3.50*	2.83*
G. O	3.50*	4.00*	3.50*	4.50*	3.85*

YELLOW TINGED

G. M	0.50*	0.75*	0.50*	0.50*	0.58*
S. M	1.00*	1.25*	1.00*	1.00*	1.05*
M.**	1.75*	2.00*	1.50*	1.50*	1.68*
S. L. M	2.50*	2.75*	2.25*	2.25*	2.37*
L. M.**	3.50*	4.00*	3.00*	3.00*	3.30

YELLOW STAINED

G. M	1.50*	1.75*	1.50*	1.50*	1.58*
S. M.**	2.25*	2.50*	2.50*	2.50*	2.40*
M.**	3.00*	3.25*	3.50*	3.50*	3.23*

BLUE STAINED

G. M.**	1.75*	2.00*	1.75*	1.75*	1.75*
S. M.**	2.25*	2.75*	2.75*	2.75*	2.48*
M.**	3.00*	3.25*	3.75*	3.75*	3.25*

**Grades not deliverable on contract. †On M dling
*Off Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne..	$0.30 –$0.31	¾ blood.....	$0.29 –$0.30
Fine clthg ..	.24 – .25	½ blood.....	.29 – .30
¼ blood.....	.29 – .30		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75		
California, Northern	.65 – .68		

PULLED—EASTERN (CLEAN BASIS)

A.A.	$0.75 –$0.78	B-Super...	$0.50 –$0.60
A-Super....	.65 – .68	C-Super...	.48 – .52

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.73 –$0.75
Staple ½ bld.	.70 – .72
Fine and fine medium	.68 – .72
¾ blood	.58 – .62
½ blood	.56 – .58

MOHAIR—DOMESTIC

Best Carding	$0.35 –$0.38
Best combing	.50 – .52

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.25 –$0.28
Cape firsts	.25 – .28

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:

70s	$0.62 –$0.65
64s	.48 – .50
58s-60s	.40 – .42

(IN GREASE)

Montevideo:

58s-60s	$0.22 –$0.23
56s	.21 – .22
50s	.20 – .21

Buenos Aires:

4s, 40-44s	$0.18 –$0.19
5s, 36-40s	.17 – .18

FOREIGN CARPET (GREASE BASIS IN BOND) SCOURED

Aleppo	$0.28 –$0.29
China: Combing No. 1	.16 – .17
China Filling Fleece	.15 – .16
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.19 – .20
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – .29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.87½ – .90
2-24s 40s	.97½ –1.00
2-26s 44s	1.05 –1.07½
2-28s 46s	1.10 –1.12½
2-30s 48s	1.15 –1.17½
2-32s 50s	1.20 –1.25

(Single yarns 5c. less than above)

2-36s, 58s	$1.32½–1.35
2-40s, 60s	1.40 –1.45
2-48s, 64s	1.45 –1.50
2-50s, 66s	1.65 –1.70
2-60s, 70s	1.95 –2.00

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.90 – .92½
2-20s, 48s in oil	.95 – .97½
2-20s, 50s in oil	1.00 –1.02½
2-20s, 56s in oil	1.10 –1.12½
2-20s, 60s in oil	1.25 –1.27½
2-20s, 64s in oil	1.32 –1.35
1-15s, 46s dyed	1.10 –1.12½
1-15s, 48s dyed	1.12½–1.15
1-15s, 50s dyed	1.15 –1.17

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.17½–$1.20
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.50 – 1.52½
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.32½– 1.35
1-30s, 64s, Warp	1.37½– 1.40
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.55 – 1.60
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	1.95 – 2.00
2-60s, 70s	2.10 – 2.15

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$0.95 –$1.00
1-40s, 50-50-60s on cops	1.15 – 1.17½
1-40s, 50-50-64s on cops	1.17½– 1.20
1-40s, 50-50-64s Australian cops	1.37½– 1.40

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.98–$1.00
Half-blood (60-62s)	.88– .92
High ¾ blood (58s)	.80– .82
Aver. ¾ blood (56s)	.78– .80
Low ¾ blood	.73– .75
High ½ blood (50s)	.70– .72
46s S. A. and N. Z.	.60– .63
44s S. A. and N. Z.	.58– .60
40s S. A. and N. Z.	.58– .60

TOPS—BRADFORD, ENG. (OCT. 23)

Fine (70s)	29 d	¾ bld. (56s)	17 d
Fine (64s)	25 d	½ bld. (50s)	14½d
½ bld. (60s)	23 d	Cross-bred (46s)	12½d
⅜ bld. low (58s)	20 d		

NOILS—BOSTON

Fine	$0.52–$0.55	High ½ bld.	$0.42–$0.45
Half-bld.	.48– .52	Low noils	.35– .38
Aver. ¾ bld.	.45– .48	Medium colored	.35– .37
Fine colored.	.43– .45		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.73 –$0.75
Lap, fine colored	.56 – .58
Hard ends, fine white	.60 – .62
Hard ends, ½ blood white	.38 – .42
Hard ends, fine colored	.25 – .28
Hard ends, medium colored	.20 – .22
Card, fine white	.28 – .30
Burr, fine Carbonizing	.35 – .38

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.13 – .14
Serges, Blue	.06½– .07
Serges, Black	.07 – .07½
Serges, Red	.10½– .11
Knit, White	.24 – .25
Knit, red	.15 – .16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	.07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. spec. gd. XX. sk. 85%	$4.25
Japan organzine, 2 thd. sp. crack. sk. 81%	3.85
Japan crepe, 3 thd. gd. XX bob. 83%	4.00
Japan crepe, 3 thd. sp. crack. bob. 81%	3.80
Japan crepe, 4 thd. crack bobbins, 78%	3.70
Japan grenadine, 4 thd. sp. grand singles, 87%	5.80
Japan grenadine 4 thd. 85%	5.50
Japan grenadine 3 thd. 90%	6.80
Canton crepe, 3 and 4 thd. ms. 14/16 on bobbins	2.85
Hosiery tram, 3 thd. Japan 90%	4.90
Hosiery tram, 5 thd. Japan, 85%	3.95
Hosiery tram, crack XX 78%	3.45

SPUN SILK YARNS (Terms: net 30)

40/2	$3.35	60/2	$3.65
50/2	3.55	62/1	2.50

Raw Silk

(60 day basis)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%	$3.20	$2.65	$2.75
Special Grand, 85%	2.90	2.65	2.75
Grand XX, 83%	2.75	2.55	2.65
Special Crack, 81%	2.65	2.45	2.55
Crack XX, 78%	2.55	2.40	2.40
Extra Extra, 73%	2.40	2.30	2.30
Best Extra, 68%	2.35	2.20	2.25

Canton filature, new style, 14/16	$1.85
Canton filature, new style, 20/22	1.75
Tussah filature, 8 cocoon	1.33

NATIONAL RAW SILK EXCHANGE

	Close Oct. 22	For the Week High	For the Week Low	Close Oct. 28	Net Chge.
October	2.20	2.60	2.20	....	....
November	2.31	2.50	2.26	2.29	—.02
December	2.24	2.42	2.24	2.35	+.11
January	2.20	2.39	2.20	2.33	+.13
February	2.22	2.40	2.21	2.33	+.11
March	2.20	2.38	2.20	2.33	+.13
April	2.20	2.38	2.20	2.33	+.13
May	2.22	2.38	2.21	2.32	+.10
June	....	2.33	2.30	2.33	....

Oct. 22 to Oct. 28—Total contracts, 651. Total number of bales, 6,510. Total approximate value, $16,600.50. Trading unit is Crack Double Extra 13-15, white, 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First Qual.	Second Qual.
50	14	$2.15	$1.95
75	18	1.60	1.50
75	30	1.70	1.60
100	18	1.25	1.15
100	40	1.30	1.20
125	36–50	1.20	1.10
150	24–30	.95	.90
150	36–40	1.00	.95
150	60	1.15	1.10
150	75–90	1.20	1.15
170	24–27	.95	.90
170	60	1.15	1.10
200	30	.90	.85
200	35–40	.90	.85
200	75–80	1.10	1.05
300	44–60	.78	.75
450	54–60	.78	.75
600	72–96	.78	.75
900	100–144	.78	.75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.60	$1.50	150	$0.95	$0.90
100	1.25	1.15	175	.95	.90
125	1.20	1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	65	45	$2.00
25	24	2.85	80	60	1.70
30	24	2.60	100	75	1.40
40	30	2.40	120	90	1.30
52	30	2.20	150	112	1.25
			180	135	1.10

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.25 2.75	120	$1.90
55	2.05–2.55	140	1.30
65	2.45	150	1.40–1.85
75	1.80–2.70	200	1.55
100	1.65–2.45	300	1.50

Rayon Waste

Prices Nominal

Open bleached waste	–$0.15
Open unbleached waste	–.13
Bleached thread waste (mfs.)	–.11
Bleached thread waste (misc.)	–.09
Colored thread waste	–.08
Colored clips	–.07

CONVERTED RAYON WASTE

Bleached tops	–$0.45
Unbleached tops	–.40
Bleached noils	–.15
Bleached garnetts	–.16
Unbleached garnetts	–.15
Colored garnetts	–.13

Silk Waste

Kibizzo Kakai Grand XX	$0.54
Kibizzo Kakai Triple Extra	.48
Frison Grand Double	.52½
Pierced Cocoons	.53

Any old iron

that's costing you money to operate?

"Old iron" is a brutal name for equipment which you regard as the major item of your business but—machinery that was an asset in 1920 may be a liability today. In the last few years obsolete machinery has demonstrated to scores of mills that in the Full-Fashioned Hosiery business it is necessary to choose between modernization and oblivion.

Mills that are still trying to *get along* with equipment that should be scrapped as "old iron" will soon find that profits are possible only with machines whose operating costs are in keeping with the production economies of today.

TEXTILE MACHINE WORKS, READING, PA.

The "READING"
Full-Fashioned Knitting Machine

Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	50
Anderson Cotton Mills	60	65
Arcade Cotton Mills	..	55
Arcadia Mills	..	200
Arcadia Mills, pfd.	89	92
Arkwright Mills	..	50
Augusta Factory, Ga.	..	20
Avondale Mills, Ala.	750	1000
Beaumont Mfg. Co.	200	250
Beaumont Mfg. Co. 7% pfd.	100	102
Belton Mills	..	20
Belton Mills, pfd.	..	60
Bibb Mfg. Co.	92	96
Bibb Mfg. Co. 6% pfd.	97	102
Brandon Corp., A	..	45
Brandon Corp., B	..	6
Brandon Corp., pfd.	..	80
Calhoun Mills	..	90
Chadwick-Hoskins Co. (par, $25)	7	10
Chesnee Mills	..	55
Chiquola Mfg. Co.	..	240
Chiquola Mfg. Co., pfd.	88	92
Clifton Mfg. Co.	95	97
Clinton Cotton Mills	..	240
Columbus Mfg. Co., Ga.	58	65
Cowpens Mills	..	30
D. E. Converse Co.	89	93
Dallas Mfg. Co., Ala.	..	50
Darlington Mfg. Co.	40	50
Drayton Mills	80	
Dunean Mills	99	108
Dunean Mills, pfd.	94	98
Eagle & Phoenix Mills, Ga.	..	65
Easley Cotton Mills, pfd.	..	45
Enterprise Mfg. Co., Ga.	..	100
Fairforest Finishing Co., serial notes.	95	100
Florence Mills	45	50
Florence Mills, pfd.	97	100
Gaffney Mfg. Co.	..	21
Gainesville Cotton Mills, Ga.	130	150
Glenwood Mills	85	95
Gluck Mills	65	70
Gossett Mills	..	55
Graniteville Mfg. Co.	..	95
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	40	45
Hamrick Mills	..	90
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd.	77	81
Industrial Cotton Mills Co., pfd.	..	30
Inman Mills	110	120
Inman Mills, pfd.	99	102
Judson Mills, A, pfd.	96	99
Judson Mills, B, pfd.	94	98
King, John P. Mfg. Co., Ga.	80	90
Lancaster Cotton Mills	225	..
Laurens Cotton Mills	..	110
Limestone Cotton Mills	..	95
Lydia Cotton Mills, serial notes	95	100
Marion Mfg. Co., N.C.	..	105
Marlboro Mills	..	15
Mills Mill, pfd.	88	92
Mollohon Mfg. Co., pfd.	95	100
Monarch Mills	94	100
Musgrove Cotton Mills	..	25
Newberry Cotton Mills	95	100
Ninety-six Mills	400	..
Norris Cotton Mills	..	40
Orr Cotton Mills	..	55
Orr Cotton Mills, pfd.	..	80
Pacolet Mfg. Co.	..	110
Pacolet Mfg. Co., pfd.	89	92
Panola Cotton Mills, Class A, pfd. (par, $60)	55	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co.		100
Piedmont Print Works (no par)	..	10
Piedmont Print Works, pfd.	..	65
Poe, F. W. Mfg. Co.	18	21
Riverside & Dan River Mills	8	11
Riverside & Dan River Mills, 6% pfd.	55	63
Saxon Mills	..	60
Sibley Mfg. Co., Ga.	50	60
Southern Bleachery	..	20
Southern Bleachery, pfd.	..	80
Southern Bleachery, serial notes	95	100
Southern Franklin Process	18	22
Southern Franklin Process, pfd.	97	101
Southern Worsted Corp., pfd.	85	90
Spartan Mills	..	130
Spencer Corp., serial notes	95	100
Union-Buffalo Mills	..	35
Union-Buffalo Mills, 1st pfd.		80
Union-Buffalo Mills, 2nd pfd.	..	40
Victor-Monaghan Co.	53	56
Victor-Monaghan Co., pfd.	105	110
Wallace Mfg. Co.	..	100
Ware Shoals Mfg. Co.	120	135
Whitney Mfg. Co.	..	25
Woodside Cotton Mills Co.	..	35
Woodside Cotton Mills Co., pfd.	..	40
Yarns Corp. of America, gold bonds.	9	100

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Oct. 29.

	High	Low	Last Sale	Net Chge.
Adams Millis	22	21¾	22	+ 1
American Woolen	8¼	6¼	8	+ 1
American Woolen, pfd.	22	18½	19⅞	+ ⅞
*Assoc. Rayon, pfd.	49½	48¼	49⅛	+ 1⅛
Belding-Heminway	4	2¾	4	+ 1
*Blumenthal	19½	19	19	..
Cannon Mills	20	19½	19¾	+ ⅜
Century Ribbon	4	4	4	+ ⅛
Collins & Aikman	15	12	14½	+ 2½
Consolidated Textile	⅜	⅜	⅜	+ ⅛
*Courtaulds, Ltd.	10⅜	10⅛	10⅜	+ 1
Duplan Silk	14⅜	14⅜	14⅜	..
Durham Hosiery, pfd.	28	28	28	..
*Fabrics Finishing	⅜	⅛	⅜	+ ⅛
Gotham Hosiery	9¼	8	9¼	+ 1⅛
Industrial Rayon	48	40½	47½	+ 6½
Kayser, Julius	19¼	18	19	+ 1⅛
Kendall, pfd.	50	40	40	—14
Mallinson	4	3⅛	4	..
*May Hosiery, pfd.	25	25	25	..
Mohawk Carpet	14⅞	13⅜	13⅜	— 1⅛
Munsingwear	37	36⅛	36⅛	+ ⅛
Pacific Mills	18⅛	17⅞	18⅛	+ ⅛
*Pepperell	85	85	85	— ⅛
*Powdrell & Alexander	33	33	33	— 1⅛
Propper-McCallum	5	5	5	..
Real Silk Hosiery	38⅛	36⅛	37⅛	— ⅛
*Tubize Chat B	4⅜	4⅛	4⅜	..
United Piece Dye Works	27	23⅛	25¾	+ ⅛

* Listed on Curb.

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co.	60	75
American Yarn & Processing Co.	..	71
Chadwick-Hoskins Co. (Par $25)	7	10
Chadwick-Hoskins Co., 8%, pfd.	90	96
China Grove Cotton Mills	80	92
Climax Spinning Co.	52	65
Clover Mills	..	25
Converse, D. E. Co.	80	91
Crescent Spinning Co.	50	61
Dixon Mills	90	100
Durham Hosiery, 6%, pfd.	..	33
Eagle Yarn Mills	52	65
Efird Mfg. Co.	60	80
Erwin Cotton Mills	..	114
Erwin Cotton Mills Co., 6%, pfd.	80	95
Flint Mfg. Co.	..	85
Flint Mfg. Co., 7%, pfd.	90	97
Globe Yarn Mills (N. C.)	..	16
Gray Mfg. Co.	..	75
Hanes, P. H. Knitting Co.	7	10
Hanes, P. H. Knitting Co., 7%, pfd.	..	98
Henrietta Mills, 7%, pfd.	40	55
Imperial Yarn Mills	..	60
Linford Mills	61	71
Locke Cotton Mills Co.	40	55
Majestic Mfg. Co.	100	120
Mansfield Mills	..	65
Mooresville Cotton Mills	..	6
Mooresville Cotton Mills, 7%, prior	..	79
Myers Mills	..	56
Myrtle Mills	..	51
National Yarn Mill	50	60
Perfection Spinning Co.	50	66
Ranlo Mfg. Co.	..	111
Ranlo Mfg. Co., 7% p d.	..	97
Roanoke Mills	..	60
Roanoke Mills, 1st pfd., 7½%	75	82
Roanoke Mills, 2nd pfd., 8%	75	80
Rosemary Mfg. Co., pfd., 7½%	95	..
Rowan Cotton Mills Co.	62	74
Seminole Cotton Mills Co.	..	75
Sterling Spinning Co.	52	66
Stowe Spinning Co.	54	62
Victory Yarn Mills Co.	30	50
Ware Shoals Mfg. Co.	105	125
Ware Shoals Mfg. Co., 7%, pfd.	90	98
Winget Yarn Mills Co.	33	50
Wiscassett Mills Co.	155	180

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd.	50	57	60
Amoskeag	9¼	..	..
Arlington	22½	21	23
Associated Textile	36½	34	37
Bates	64	63	66
Berkshire, Associates, com.	8½	7	9
Berkshire Associates, pfd.	72	52	55
Bigelow-Sanford, com.	40	..	..
Boott Mills	120¼	..	112
Edwards	80¾	63	65
Esmond, pfd.	102	100	102
Farr Alpaca	70	68	71
Hamilton Woolen	40	35	38
Hill	18	14	18
Indian Orchard	20½	20	25
Ludlow	124	123	127
Merrimack, com.	46¾	44	48
Nashua, com.	12½	13	15
Nashua, pfd.	66	66	60
Naumkeag	84	80	83
Newmarket	27	13	16
Otis	43	48	..
Pacific	20	..	..
Pepperell	85	84	86
Plymouth Cordage	70¼	63	67
York	8¼	5½	7

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co.	300	320
Barnard Mfg. Co.	..	10
Berkshire (com.)	8	..
Berkshire (pfd.)	50	56
Bourne Mills	9	12
Border City Mfg. Co.	3	5
Charlton Mills	..	50
Cornell Mills	..	10
Davol Mills	..	5
Flint Mills	25	..
King Philip Mills	3	..
Lincoln Mfg. Co.	..	10
Luther Mfg. Co.	80	..
Merchants Mfg. Co.	20	..
Narragansett Mills	..	5
Pepperell Mfg.	85	..
Pilgrim Mills	28	40
Richard Borden Mfg. Co.	..	3
Sagamore Mfg. Co.	57	..
Shove Mills	..	5
Stafford Mills	..	..
Stevens Mfg. Co.	28	..
Union Cotton Mfg. Co.	16	..
Weetamoe Mills	..	1

Textile Calendar

United States Institute for Textile Research, First Annual Meeting, New York City, Nov. 6, 1930.

National Association of Woolen and Worsted Overseers, 47th Annual Meeting, American House, Boston, Mass., Nov. 15, 1930.

The Textile Forum, N.A.C.M., overseers of carding, Boston (Mass.) Chamber of Commerce, Nov. 18, 1930.

Cotton Manufacturers Association of North Carolina, Fall Meeting, Carolina Hotel, Pinehurst, N. C., Nov. 21 and 22, 1930.

Ninth National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York City, Dec. 1 to 6, 1930.

The Textile Forum, N.A.C.M., overseers of spinning, Boston (Mass.) Chamber of Commerce, Dec. 9, 1930.

The Textile Forum, N.A.C.M., master mechanics, Boston (Mass.) Chamber of Commerce, Jan. 13, 1931.

The Textile Forum, N.A.C.M., warp preparation and weaving, Boston (Mass.) Chamber of Commerce, Feb. 10, 1931.

The Textile Forum, N.A.C.M., overseers of finishing, Boston (Mass.) Chamber of Commerce, March 10, 1931.

Knitting Arts Exhibition, Commercial Museum, Philadelphia, April 13 to 17, 1931.

Exposition of Chemical Industries, Grand Central Palace, New York, May 4 to 9, 1931.

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Wool Goods to Improve Slowly

IN VIEW of the marked curtailment of purchasing power of consumers resulting from the general business depression, it is unlikely that any considerable improvement in demand will be witnessed before next spring at the earliest." This prediction is contained in the bulletin on wool and woolens issued by the industries section of the Standard Statistics Co., under date of Oct. 17.

This forecast states that "depression in the domestic woolen and worsted industry, has if anything, become intensified in the last few months, and inquiries during the recent spring openings were well below trade expectations. Producers consequently have materially restricted activities, with mills currently operating at only 40% to 50% of capacity."

Better Inventory Position

"A particularly favorable development has been the recent firming of raw wool prices, notwithstanding the drastic deflation in commodity prices generally. Although large surplus stocks of wool will operate against any sustained recovery in raw values in the near future, conversely no substantial recession is probable. Hence the heavy inventory losses suffered by the manufacturing trade in the first half of the year will not be repeated during the balance of 1930. Small volume of business and unsettled goods prices on the other hand, will prevent woolen manufacturers from realizing the full benefits of this improved raw material situation. In most instances 1930 operations will result in little or no profit."

The report states that unfavorable trend of profits this year has been a continuation of the tendency since 1922 and satisfactory profits will be confined to small mills, few in number, while the larger mills as a group have suffered material operating deficits after depreciation charges.

Wool Drop Cuts Profits

Raw wool is credited with most of the blame in bringing this about, pointing to the decline in raw wool index of Textile World during the first 8 months of this year of 15%, which is added to a drop of 29% last year, the two causing large inventory losses to manufacturers and offsetting any profits that might have been made from manufacturing operations.

Profits this year, the report states, will depend largely upon the inventory situation of mills. In this connection it is emphasized that surplus stocks were reduced by 13.7% to almost absolute minimum requirements, according to recent figures prepared by the Wool Institute.

"Hence in this respect the domestic woolen industry is in a relatively more favorable position than at any time within recent years. Analysis of factors governing demand conditions reveals, nevertheless, the fallacy of current statements that the industry has 'finally turned the corner.'"

Although Standard Statistics finds that consumption of woolen goods has been materially curtailed, the report points to an exception to this seen in women's wear trade where a considerable demand for suitings and cloakings has been stimulated by cooler weather and new style trends. The survey states that quotations on spring goods generally will average 10% lower than a year ago, and it is felt that in view of this, the available volume of business does not justify such reductions and profit margins of manufacturers will therefore be further restricted during the near future.

"Over a longer period, possibly late in 1931, manufacturers' earnings should undergo some improvement in response to the stronger inventory situation," is the concluding statement in the report on goods. The report closes with an analysis of the financial position of several companies in the woolen and worsted industry.

Rayon Firms Control Rubenstein Patent

WITH the aim of making the Rubenstein patent covering manufacture of run-resisting circular knit underwear fabric, available to the rayon underwear industry, three leading rayon yarn companies have purchased capital stock of the company controlling the patents. It was announced this week that the entire stock of the Knitting Arts Corp., recently formed to control patent No. 1,755,968, issued to H. Rubenstein last April, had been purchased by Viscose Co., DuPont Rayon Co. and Tubize Chatillon Corp.

The Rubenstein patent has been the subject of much discussion in both knitting and retail circles during recent months. In fact, reported threats of injunction against the manufacture and sale of fabric and garments made under the claims of the Rubenstein patent caused retailers to fear the possibility of litigation and as a result created a disturbance in the knitting industry detrimental to knitters and rayon producers as well. The acquisition of the patent by three of the leading rayon producers is seen as alleviating the uneasiness which has prevailed since its issuance and as laying the foundation for the industry to capitalize to the fullest extent the growing popularity of run-resistant fabric.

While the rayon producers referred to above have paid a substantial sum for the patent, it is their intention to make but a nominal charge for its use to cloth knitters and underwear manufacturers, believing it to be to the best interest of all concerned to permit the use of the patent by all manufacturers who are willing to adhere to certain standards of construction which will tend to prolong the popularity of the fabric and at the same time encourage higher quality standards in the manufacture of circular knit rayon underwear.

Applications for a license to use the Rubenstein patent will be accepted on the basis of a royalty charge of ¼c. for each pound of run-resistant fabric manufactured by the licensee to those making application for same within a period of 30 days from date and executing the license agreement promptly thereafter. After that time, the Knitting Arts Corp. reserves the right to reject any or all applications for license and to increase the rate of royalty to future licensees.

It is expected that by Jan. 1, specifications and standards can be set up which will apply principally to the weight of the fabric made under this patent, which standards will apply to all licensees alike. License agreements are now in the course of preparation. The Knitting Arts Corp. is located at 475 Fifth Avenue, New York.

Rayon Makers at Recent Southern Textile Exposition

Nearly all the leading rayon producers were represented at last week's Southern Textile Exposition at Greenville, with attractive displays of yarns and fabrics. American Enka Corp. exhibited its product on cones trademarked and wrapped in Cellophane. Among the latest fabrics shown were several patterns of "Clipper Crepe" while other goods made of Enka yarns included new designs created by C. C. Mattman, of that company.

American Glanzstoff Corp. displayed a bath robe made of terry cloth containing rayon.

Celanese Corp. of America, exhibited samples of recent developments in cross-dyeing of fabrics and knitted goods and also several new fabrics woven entirely of Celanese.

Du Pont Rayon Co., featured corded damasks for draperies which were developed in conjunction with F. Schumacher & Co., while several all-rayon jacquard crepes and jacquard granite crepes made with silk warp and rayon filling were shown.

Tubize Chatillon Corp. exhibited a number of fabrics developed recently, including a panne satin made of 55 denier Chacelon (acetate) with almost 400 ends to the inch; a crepe back satin made of Chacelon and viscose yarn, a new type of scotch moire, and a georgette made of 50 denier 20-filament Tubize in a fine photoengraved design.

Viscose Co. introduced a new wall covering of rayon warp and cotton filling which attracted much attention. It is a washable fabric. In this exhibit were featured a shirting made of the new Durafil yarn which is characterized by unusual strength, and also a bathing suit and lining material both made of Seraceta, the new acetate yarn produced by Viscose Co. Other items of interest were rayon towels and a novel rayon parasol made of viscose.

Accident or Design...

this sensational comeback of cotton?

THIS new popularity of cotton is no accident. It came about through a definite plan by manufacturers and style authorities to put cottons into the class of highly styled fabrics. Such agencies as the Cotton-Textile Institute have contributed much to the success of the movement.

Trademarking to the Fore

Manufacturers have gone further than merely giving their cottons authentic style and sound quality. They are employing modern, scientific merchandising methods. They are initiating attractive, sales-compelling advertising. And to make their merchandising and advertising plans doubly effective, they are marking the fabrics with name or trademark.

If you were to ask any cotton goods man who trademarks his fabrics what benefits it gives him, you would get this answer: 1. It protects his cottons from substitution. 2. It establishes the quality of his cottons in the eyes of the buyer. 3. It helps create a steady demand ... encourages repeat sales ... multiplies the effectiveness of his advertising campaign.

But ... how to Trademark?

For 27 years Kaumagraph has been identification and trademarking headquarters for the cotton industry. Today more than ever before Kaumagraph is prepared to assist manufacturers to apply trademark to fabric ... with Kaumagraph Dry Transfers, now available in both one and two colors.

Special mechanical appliances, worked out by Kaumagraph, simplify the trademarking operation. Often it is possible to combine it with another operation such as measuring, rolling, winding, etc., so that the handling expense is not increased. It is not unusual for Kaumagraph to design special machinery for unusual trademarking requirements.

Ask for further particulars by mail ... or we will be glad to send a representative to give you additional information.

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Fundamentals of Cotton Piece Goods Finishing

(Continued from page 61)

much fuller than is really required.

In the stiffening and filling operations, boiled starch or mixtures containing starch and dextrin, or mixtures containing starch, China clay, and other ingredients, are applied to the cloth. Starching operations are divided into at least three distinct classes: pure starching, back filling, and weighting. In weighting, the object is to saturate the fabric as thoroughly as possible with certain soluble substances in order to give it increased weight and fullness. Usually mixtures containing epsom salts, sulfate of soda, glucose, chloride of magnesium, and chloride of zinc are employed.

In pure starching, the primary object is appearance, the question of increased weight being of little moment. The operation consists of applying a certain amount of starch paste, or a mixture of starches and gums into and between the threads of the cloth. This has the effect—when skillfully and carefully done—of imparting a thick feel to the cloth, and it also gives to a low-grade fabric the effect and appearance of one of much better quality. In this operation the objects to be attained are: first, to add weight to the cloth; and secondly, to produce a characteristic appearance.

Backfilling is a process in which the size or filling is applied to one side of the cloth only. The substances used in the mixings consist of starch, China clay, or other mineral substances, fatty matter of some description, and antiseptics.

PREPARING FINISHING SOLUTIONS

In preparing finishing solutions the ingredients are mixed and boiled together in a large vessel or tub fitted with a steam pipe and a perforated copper steam coil. The necessary quantity of water is first run into the tub, allowance being made for the amount of water which condenses from the perforated steam coil. The color solution (if any is used) is then strained in. The starch, previously weighed, is next added; and then necessary quantity of China clay or other weighting compounds is stirred in. (In the case of China clay, this should have been well boiled previously and allowed to cool.) After these ingredients have been well mixed together, the antiseptic substances and softeners should be added. The whole should be mixed by a paddle or agitator and, while continuously agitated, brought to the boiling point. As soon as the mass begins to boil, the stirring paddle is withdrawn or the agitator stopped, and a cover placed over the vessel. The mixture should be allowed to boil for fifteen minutes, after which it is ready for use. It is important that the boiling is thorough, or the starch granules may not be gelatinized, in which case the mixing will be dusty, especially if corn starch is used. In all cases where formaldehyde is used as the antiseptic for preserving the cloth from mildew, it should be added after the mixture has cooled; other antiseptics may be used hot, and this is especially necessary in the case of salicylic acid and thymo-carbonyl, which are almost insoluble in cold water.

Botany Finds Good Volume of Women's Coat Trade to Come

Statement by Botany Worsted Mills, Passaic, N. J., on results of a survey on ratio of women's dressy coat business done thus far this season by outstanding retail stores, shows a considerable portion still to go. The summary follows:

According to authentic information, obtained in response to telegraphic inquiries to merchandise managers of representative retail stores in all the major cities in all parts of the country, scarcely 50% of the probable volume of retail coat business for the entire autumn and winter season has as yet been transacted. This statement covers inquiries forwarded and replies received during the week of Oct. 20 to 25 inclusive, and is, therefore, a current and timely review of the situation. It signifies that, considering the normal expectation of dressy coat business between July and February as 100%, there remains 50% to be done between now and February.

Our survey discloses plainly that the tendency to spread each garment season's activity more evenly over its entire length instead of crowding it into the first few weeks, is becoming more pronounced than ever. It presents further proof that the practice of "rushing the seasons" is being abandoned in favor of a policy in which the weather is enlisted as a strong sales promotion asset.

In tabulating the replies according to sections of the country, we find that in the eastern territory, a considerably smaller percentage of the season's anticipated total volume has been done than in the mid-west and far west.

There has been an increase in the ratio of dressy coat to sport coat sales. One foremost retail institution reported that 65% of its coat volume to date was in dressy models, compared to 56% last year.

Concluding the consideration of the replies to our query, we assert, without reservation, that a sustained period of brisk, seasonable weather will precipitate a strong and consistent retailer and consumer demand for winter coats.

British Rayon Production Gains in September

MANCHESTER, ENGLAND.—Production of rayon yarn and waste in Great Britain during September was 4,210,000 lb., against 3,500,000 lb. in August and 5,280,000 lb. in September, 1929. Total production for first nine months of 1930 was 36,890,000 lb. against 41,720,000 lb. in similar period of 1929. The present output is just about being cleared by current deliveries.

Viscose Co. Offers New Dull-Luster Yarn for Underwear

A new low luster viscose process rayon yarn, especially intended for production of knit underwear having a dull surface, has been placed on the market by the Viscose Co. The yarn is known as Sombray, is described as duller than the same firm's Dulesco, and made up in 144 denier with 36 filaments.

Textile Chemists Meet in Paterson

At the October meeting of the New York Section of the A.A.T.C.C., held on Friday evening, Oct. 24, at the Alexander Hamilton Hotel, Paterson, N. J., two topics of vital interest to textile printers were discussed. Robert Schey, a prominent textile designer, spoke on the actual conception and execution of designs for printed fabrics. Following this, William McCormack, of the Textigrave Co., outlined the steps comprising the transcribing and engraving of the design to the stage where it is turned over to the printer for actual production.

In his remarks, Mr. Schey pointed out the great developments which have been made in the printing industry in this country since the war and urged that silk printers support American designers. Mr. McCormack told of some difficulties encountered in engraving and touched lightly on the photographic engraving process.

Phi Psi Members Meet at Greenville

The Greenville (S. C.) Alumni Chapter of Phi Psi Fraternity held a banquet at the Poinsett Hotel, Oct. 22, and a representative group of members attended. Visitors from other states included Dr. Howard S. Neiman, New York, N. Y., who was recently initiated into the fraternity; Robert W. Philip, Atlanta, Ga.; Arthur R. Thompson, Jr., Charlotte, N. C., president of the grand chapter; Robert C. Dicks, vice-president and treasurer, Louisville Textiles, Inc., Louisville, Ky.; and H. S. Busby, director, A. French Textile School, Georgia School of Technology, Atlanta, Ga. In addition to talks by the above members, brief remarks were made by Tom Johnson, president of the local chapter; Dr. Chas. E. Mullin, of Clemson College (S. C.) Textile School, and Joseph C. Cobb, of Greenville.

R. I. Section of Colorists Hears Speaker on Soaps

The October meeting of the Rhode Island Section of American Association of Textile Chemists and Colorists, was held on Oct. 31 at the rooms of the Providence Engineering Society, Providence, R. I.

G. M. Halberstadt of the Research Department of Procter & Gamble, was the speaker and his subject was "Textile Soaps" A Newton Graves is secretary of the section.

N. C. Manufacturers to Meet on Nov. 21 and 22

The fall meeting of the Cotton Manufacturers Association of North Carolina will be held Friday and Saturday, Nov. 21 and 22, at the Carolina Hotel, Pinehurst, N. C., according to a recent announcement from Hunter Marshall, Jr., secretary and treasurer of the organization. An interesting program is being arranged and will be released within a week or ten days, it was stated.

Connect *your* distant Offices by Telephone Typewriter Service

TELEPHONE TYPEWRITER SERVICE speeds business and cuts operating costs. It transmits typewritten messages instantly between the separated divisions of an organization. It is quick, accurate and handles an unlimited flow of incoming and outgoing messages in a single business day. Orders are reproduced identically on duplicate printed forms. Inquiries are answered from a distant city the minute they arise. Routine is simplified and expensive duplication of operations eliminated.

A textile company has headquarters in Boston, sales offices in New York, a manufacturing plant at Biddeford, Maine, and a bleachery at Lewiston, Maine. Telephone Typewriter Service ties together the operation of all these units. An official writes: "Many transactions can be cleaned up on the same day that they arise, even if they concern several offices. A saving of 48 hours or more in the handling of orders is frequently effected."

A public service corporation uses Telephone Typewriter Service to connect its offices in three cities. General information and executive messages are exchanged.

Your local Bell Telephone Business Office will gladly show you how this modern business aid can be of value to your company.

The New York office of the International Nickel Co., maintains constant contact with factories at Huntington, W Va.

Nine outlying plants are connected with the Chicago office of the American Can Company by telephone typewriters.

The Kelly-Springfield Tire Company uses telephone typewriter service between New York and Cumberland, Md.

Tubize "Economist" Deplores Rayon Bargaining

The current price situation in the rayon industry is the theme of caustic editorial comment in the November issue of *Textile Economist*, published by the Tubize Chatillon Corp. The editorial observes that "the wide-spread debasement of rayon list prices since January of this year leads one to question seriously their meaning or use," and concludes with the suggestion that the trade should "adhere to list prices or publish no list prices at all."

"Today," the editorial states, "the published price is barely a starting point for price bargaining in most cases. One result of a producer cutting his prices to meet competition is to 'lose face' in the eyes of his customers. This leads to mutual distrust between the producer and his customers and undermines the entire stability of their relationship."

The editorial questions whether "the rayon market today need be in the hands of the buyers, as it undoubtedly is," and asserts that "strong leadership among producers could end the present suzerainty of the buyers, if not actually make the rayon market a sellers' market."

The "editorial" expresses the belief that there will be no new rayon price lists issued by producers before the first of the year, but qualifies this with the comment that "the culmination of the rebate cycle (meaning the 5% discount recently announced) really has resulted in a gradual price cut during recent months."

Lillian Edgerton Occupies Larger Quarters

Lillian Edgerton, research counselor, who conducts the department "The Buyers Viewpoint" which appears in TEXTILE WORLD, has moved her office at 267 Fifth Ave., New York, into larger quarters in the same building. She now occupies the Penthouse where there is sufficient space for conferences and classes in addition to her research work.

Enka Producing 600 Denier Rayon

The latter part of last week, the Enka Rayon Corp., with plant at Asheville, N. C., received at its booth at the Southern Textile Exposition in Greenville, S. C., the first samples of its new 600 denier rayon which it has just started to produce. The company finds the major demand for this is for use in production of bath mats.

Panama Route Gains Favor For Silk Cargoes

The Panama Canal is becoming a more and more popular route for shipping silk cargoes from the Orient to the New York market, the traffic bureau of the Silk Association of America, Inc., reports. During the first nine months of the year a total of 106,556 bales of raw silk were routed via the Panama Canal, as compared with 81,549 during the same period in the previous year. Raw silk shipments in 1929 via the Panama Canal were 116,496 as compared with 31,319 bales in 1928. Its more reasonable freight rate is given as the reason for the increase in the popularity of the Panama Canal route. The all water Panama rate is $6 per hundred pounds while the overland rail rate is $12.

Combed Spinners Against Night Work

Southern combed yarn spinners attending a meeting of the Gaston County Textile Manufacturers Association in Gastonia last Monday went on record as unanimously endorsing in principle the discontinuance of night work for women and minors under 18 years of age, as recommended by The Cotton-Textile Institute. More than 50 combed spinning mill executives were present. George Sloan, president of the institute, told spinners their action meant that the recommendation had approval of 70% of the cotton industry.

Boston Wool Receipts

Recepits of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Oct. 25, based upon data compiled by the Market News Service of the Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Oct. 25	Total to Date 1930	Total to Date 1929
Domestic	896,000	334,004,000	193,874,000
Foreign	712,000	55,326,000	86,222,000
Total	1,608,000	389,330,000	280,096,000
IMPORTS AT PRINCIPAL PORTS			
Boston	712,000	55,326,000	86,222,000
Philadelphia	346,000	39,034,000	73,832,000
New York	1,545,000	37,815,000	63,212,000
Total	2,603,000	132,175,000	223,266,000

Philadelphia Yarn House Enlarges Its Space

Clarence L. Meyers, Inc., Philadelphia, Pa., mercerized cotton yarn, is leasing adjacent building and making extensive alterations, including 8,000 sq.ft. additional space.

Wahnetah Moves Sales Offices into Garment District

The Wahnetah Silk Co. has moved its salesrooms from their former location at 443 Fourth Ave., New York, to 218 West 40th St., the eighth floor. New location is just west of Seventh Ave., in the garment district.

Cotton Yarn Firm Moves

Rider-Osborne-Devine, Inc., Philadelphia, have moved into larger quarters. They are located at southeast corner of Broad & Allegheny Ave., having moved from their former address at Broad & Erie Aves.

Business News

A. M. Sheldon Elected President of Union Special Machine Co.

At a meeting of the board of directors of the Union Special Machine Co., Chicago, recently, Archibald M. Sheldon, who has been vice-president and general manager since Jan. 1, 1926, was elected president to succeed the late Francis Stanley North. He will continue to serve also as general manager.

Mr. Sheldon was born April 23, 1885, in Rutland, Vermont. He entered the employ of the Union Special Machine Co. on Jan. 1, 1915.

William C. Heaton Elected President of Reorganized Kolo Co.

William C. Heaton, former president of the Auto-Pneumatic Action Co., (Welte-Mignon licensee) and one of the most widely and best known executives in the music trade, has been elected by the new board of directors of Kolo Products Co., Inc., president and general manager. Mr. Heaton assumes his new responsibilities immediately with offices at 320 Fifth Avenue, New York.

Textile Development Co. Opens Southern Office

The Textile Development Co., Boston, Mass., consulting engineers on cotton manufacturing, have opened an office in the Jefferson Standard Bldg., Greensboro, N. C. This move was found necessary owing to the increasing amount of business the company has been doing in the South. However, Sidney S. Paine, president, expects to spend as much time in the North as formerly.

A. H. Shafer Gets Foxboro Pittsburgh Post

It is announced by the Foxboro Co., Inc., recording instrument manufacturers, of Foxboro, Mass., that A. H. Shafer has been appointed manager of the firm's Pittsburgh office, replacing H. S. Gray, who is now in charge of office routine at the home plant.

H. Brinton Co. Opens N. Y. Office

A New York office of H. Brinton Co., circular knitting machinery manufacturers, was opened today at 366 Broadway, Room 304. The office is in charge of J. F. Forrest, who has been connected with this company for a number of years.

Useful Catalogs

Lighting. Ivanhoe Division of the Miller Co., Meriden, Conn. Catalog No. 900, of industrial lighting section, contains inclusive list of metal reflectors and fittings for industrial illumination, together with illustrations, instructions on uses, and specifications.

Water Filtration. Hungerford & Terry, Inc., Clayton, N. J. Water purifying apparatus for industrial application, including gravity and pressure filters, iron and manganese removal, water softeners and also servicing of equipment, described in illustrated booklet; specifications given.